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## Undergraduate Bulletin of the University of San Diego 1994-1996

University of San Diego

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UNDERGRADUATE  
BULLETIN  
1994-1996



University of San Diego



**GENERAL INFORMATION****DEGREES AND REQUIREMENTS****COURSES OF INSTRUCTION****CREDENTIAL PROGRAMS**

5998 Alcalá Park

San Diego, California 92110-2492

(619) 260-4600

The information contained in this *Bulletin* was current as of the date of publication, February 1, 1994.

# UNDERGRADUATE BULLETIN OF THE UNIVERSITY OF SAN DIEGO 1994 - 1996

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## 2 ■ COMMUNICATIONS

### COMMUNICATIONS

According to the nature of the inquiry, letters or calls to the University should be addressed as follows:

**Director of Undergraduate Admissions** — admissions procedures, campus visits, bulletins, other printed information.

**Director of Financial Aid** — scholarships, financial aid, grants, loans, student employment.

**Director, Career Services** — career information and job interviews for students and alumni/ae.

**Vice President for Student Affairs** — student affairs, student activities.

**Director of Housing** — housing accommodations.

**Vice President for University Relations** — contributions and bequests, information about University events, alumni/ae affairs.

**Dean, Academic Services** — disability issues, Educational Opportunity Program.

**Dean, College of Arts and Sciences** — general academic policy and programs.

**Dean, School of Business Administration** — accountancy, business administration, economics.

**Dean, School of Education** — credential programs, graduate programs in education.

**Dean, Philip Y. Hahn School of Nursing** — nursing programs.

**Vice President for Finance and Administration** — all financial matters.

**Registrar** — student records and transcripts.

**Dean, School of Graduate and Continuing Education** — information pertaining to graduate programs, Summer Sessions, Intersession, and continuing education.

Mailing address:  
University of San Diego  
5998 Alcalá Park  
San Diego, California 92110-2492

Telephone: (619) 260-4600

### POLICY OF NON-DISCRIMINATION

The University of San Diego does not discriminate on the basis of race, color, religion, sex, national origin, age, or disability in admission to the University, in financial aid programs, in educational programs and policies, and in athletic and other University-administered programs. Inquiries concerning the application of the University's non-discrimination policies may be addressed to USD's Dean of Academic Services.

It is the policy of the University to employ and promote personnel regardless of the foregoing characteristics, unless one or more of them are a bona fide occupational qualification for a particular position. The University of San Diego is firmly committed to a policy of equal opportunity in all aspects of employee relations, including employment, salary administration, employee development, promotion, and transfer.

### FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

In compliance with the Family Rights and Privacy Act of 1974 (the "Buckley Amendment"), as amended, the University provides students the right to inspect and review their educational records. The records are located in the Office of the Registrar (F 113). Students may arrange for an appointment with the Registrar in order to inspect their records. No personally identifiable information derived from the records

will be disclosed to anyone, except certain University officials specified in the federal statute, without the student's written consent. Parents do not have the right to view records without the written consent of the student. Students may amend or correct their records if information there is inaccurate, misleading or incomplete. Students have the right to a hearing if the records are not corrected. If a student is dissatisfied with the results of a hearing he or she may place a statement in the records to that effect. Students may file FERPA complaints with the Office of the Registrar concerning alleged failures by the institution to comply with the Act.

### STUDENTS WITH DISABILITIES

In keeping with its mission and goals, the University of San Diego promotes an environment of respect for and support of persons with disabilities. USD offers reasonable accommodation to persons with disabilities, based upon current documentation of the disability and a professionally-developed plan for matriculation. USD administration of policy and service to individuals with disabilities is decentralized. Academic, personal/social and learning disability counseling and consultation services are available through the Counseling Center and Academic Services (S 303), or by calling (619) 260-4655. Readers, tutors, and note-takers may be hired through the Student Employment Center of the Office of Financial Aid in the Hughes Center. After verification of disability is on file in the office of the student's Academic Dean, taping of lectures, specialized administration of exams and other accommodations, when appropriate, are arranged with the individual faculty member.

### RESERVATION OF THE RIGHT TO MODIFY

It is the policy of the University of San Diego to adhere to the rules and regulations, course offerings, and financial charges as announced in this *Bulletin* or other University publications. The University nevertheless hereby gives notice that it reserves the right to expand or delete or otherwise modify its degree programs or courses of study, to change its rules affecting the admission and retention of students, or the granting of credit or degrees, to change the academic calendar, course offerings, course content, or to alter its fees and other charges, whenever such changes are adjudged by it to be desirable or necessary.





## MEMBERSHIPS

The University of San Diego holds membership in the following:

American Assembly of Collegiate Schools of Business  
 American Association for the Comparative Study of Law  
 American Association of Colleges of Nursing  
 American Association of Colleges for Teacher Education  
 American Association of Collegiate Registrars and Admissions Officers  
 American Council on Education  
 American Electronics Association  
 American Historical Association  
 American Payroll Association  
 American Political Science Association  
 American Society for Engineering Education  
 Association of American Colleges  
 Association of American Law Schools  
 Association of Catholic Colleges and Universities  
 Association of College and University Auditors  
 Association of College and University Housing Officers  
 Association of College and University Telecommunication Administrators  
 Association of College Unions International  
 Association of Conference and Events Directors International  
 Association of Governing Boards of Universities and Colleges  
 Association of Graduate Schools in Catholic Colleges and Universities  
 Association of Independent California Colleges and Universities  
 Association of Independent California Colleges of Nursing  
 Association of Independent Liberal Arts Colleges of Teacher Education  
 Association of Navy NROTC Colleges and Universities  
 Association of Physical Plant Administrators  
 Beta Alpha Psi  
 California Association of Colleges of Nursing  
 California Association of Colleges for Teacher Education  
 California Association of College and University Housing Officers  
 California Council on Education of Teachers  
 Campus Compact  
 Campus Opportunity Outreach League  
 Center for Academic Integrity  
 College Entrance Examination Board (and Scholarship Service)  
 College Placement Council  
 College and University Personnel Association



Collegium  
 Committee of Gift Annuities  
 Conference Board  
 Council for the Advancement and Support of Education  
 Council of Graduate Schools in the United States  
 EDUCOM  
 Greater San Diego Chamber of Commerce  
 Independent California College and University Council for the Education of Teachers  
 Independent Colleges of Southern California  
 Institute of International Education  
 International Association of Campus Law Enforcement Administrators  
 Latin American Council of Schools of Administrators (CLADEA)  
 National Association of Advisors for the Health Professions  
 National Association for Campus Activities  
 National Association of College and Admission Counselors  
 National Association of College Auxiliary Services  
 National Association of College Stores  
 National Association of College and University Attorneys  
 National Association of College and University Food Service  
 National Association of Educational Buyers  
 National Association of Foreign Student Affairs  
 National Association of Independent Colleges and Universities  
 National Association for Law Placement  
 National Association of Student Financial Aid Administrators  
 National Association of Student Personnel Administrators  
 National Coalition for Campus Child Care  
 National Collegiate Athletic Association

National Council on Public History  
 National League for Nursing  
 National Society for Experiential Education  
 National Society of Professional Engineers (Professional Engineers in Education)  
 Pacific Association of Collegiate Registrars and Admission Officers  
 San Diego County Consortium  
 San Diego Ecumenical Conference  
 San Diego Employers Association, Inc.  
 San Diego Oceans Foundation  
 San Diego Venture Group  
 Society of American Archivists  
 Southern California Consortium of International Studies  
 Western and National Association of College and University Business Officers  
 Western Association of College Admission Counselors  
 Western Association of Graduate Schools  
 Western College Association and Western Association of Schools and Colleges  
 Western College Placement Association  
 Western Cooperative for Educational Telecommunications  
 Western Economic Association  
 Western Institute of Nursing  
 World Affairs Council of San Diego

**The Undergraduate Bulletin of the University of San Diego** is one of several bulletins published by the University of San Diego. Other bulletins are:

*Graduate Bulletin*  
*School of Law Bulletin*  
*Summer Session Bulletin*  
*Intersession Bulletin*



# Academic Calendar 1994-1995

## 1994 FALL SEMESTER

**Monday-Tuesday, August 29-30**  
New Student Orientation

**Wednesday-Friday, August 31, September 1-2**  
Registration and fee payment dates for new and returning students (for evening students: registration 5-7 p.m., before evening classes during first week of classes, except Friday evening)

**Saturday, September 3**  
Late registration fee begins

**Tuesday, September 6**  
Classes begin

**Friday, September 9**  
University Mass of the Holy Spirit, 12:00 noon

**Monday, September 12**  
Deadline 100% tuition refund

**Monday, September 19**  
Deadline 90% tuition refund  
Last day to enroll in classes  
Deadline to select grade or Pass/Fail option

**Monday, September 26**  
Deadline 80% tuition refund

**Monday, October 3**  
Deadline 70% tuition refund

**Monday, October 10**  
First 60% tuition refund  
Deadline for registration and payment for GE Competency Examinations

**Monday, October 17**  
Final deadline 60% tuition refund  
Financial aid applications for January Intercession available

**Friday, October 21**  
Fall holiday (no classes)

**Monday, October 24**  
Mid-term grades due  
Class reservation begins for Spring, 1995  
Deadline 50% tuition refund



**Friday, October 28**  
Last day to enroll with the School of Education for Spring, 1995 field placements

**Monday, October 31**  
Deadline 40% tuition refund

**Tuesday, November 1**  
Deadline to apply for Spring, 1995 Installment Payment Plan

**Friday, November 4**  
Priority deadline for January, 1995 Intercession financial aid applications

**Saturday, November 5**  
Competency Examinations: Mathematics and Foreign Languages

**Saturday, November 12**  
Competency Examinations: Logic, Lower Division Composition and Advanced Writing Proficiency

**Monday, November 14**  
Last day to withdraw from classes  
Deadline for removal of Incompletes from prior Semester/Summer Session

**Thursday-Friday, November 24-25**  
Thanksgiving holiday (no classes)

**Monday-Friday, December 5-9**  
Last week of classes

**Tuesday, December 6**  
Freshman class reservations (no classes until 4:00 p.m.)

**Friday, December 9**  
Last day of classes  
Last day to petition for January, 1996 graduation

**Monday-Saturday, December 12-17**  
Final examinations

## 1995 INTERSESSION (OPTIONAL)

**Wednesday, January 4**  
First day of Intercession classes

**Wednesday, January 25**  
Last day of Intercession classes

See the 1995 *Intercession Bulletin* for specific courses, dates and registration procedures.

## 1995 SPRING SEMESTER

**Monday, January 30**  
New Student Orientation

**Monday-Tuesday, January 30-31**  
Registration and fee payment dates for new and returning students (for evening students: registration 5-7 p.m. before evening classes during first week of classes, except Friday evening)

**Wednesday, February 1**  
Classes begin  
Late registration fee begins

**Friday, February 3**  
University Faith Service, 12:00 noon



**Tuesday, February 7**

Deadline 100% tuition refund

**Tuesday, February 14**

Deadline 90% tuition refund

Last day to enroll in classes

Deadline to select grade or Pass/Fail option

**Monday, February 20**

Priority deadline for USD financial aid applications for Fall and/or Spring semesters, 1995-1996 for new (freshmen and transfer) undergraduate students

**Tuesday, February 21**

Deadline 80% tuition refund

**Tuesday, February 28**

Deadline 70% tuition refund

**Tuesday, March 7**

First 60% tuition refund

Deadline for registration and payment for GE Competency Examinations

**Monday, March 13**

Financial aid applications for 1995 Summer Sessions available

**Monday-Friday, March 13-17**

Spring break (no classes)

**Tuesday, March 14**

Final deadline 60% tuition refund

**Tuesday, March 21**

Deadline 50% tuition refund

**Monday, March 27**

Mid-term grades due

Class reservations begin for Fall, 1995

**Tuesday, March 28**

Deadline 40% tuition refund

**Friday, March 31**

Last day to enroll with School of Education for Fall, 1995 field placements

**Saturday, April 1**

Priority deadline for USD financial aid applications for Fall and/or Spring semesters, 1995-1996 for continuing undergraduate students

Competency Examinations: Mathematics and Foreign Languages

**Monday, April 3**

Priority deadline for 1995 Summer Sessions financial aid applications

**Saturday, April 8**

Competency Examinations: Logic, Lower

Division Composition and Advanced Writing Proficiency

**Tuesday, April 11**

Last day to withdraw from classes

Deadline for removal of Incompletes from the prior semester/Intercession

**Wednesday, April 12**

Last day of classes before Easter holiday

**Thursday-Friday, April 13-14**

Holy Thursday, Good Friday (holidays)

**Monday, April 17**

Classes reconvene after Easter holiday

**Monday-Friday, May 8-12**

Last week of classes

**Tuesday, May 9**

Honors Convocation

**Wednesday, May 10**

Freshman class reservations (no classes until 4:00 p.m.)

**Friday, May 12**

Last day of classes

Last day to petition for May/August, 1996 graduation

**Monday-Tuesday, May 15-16**

Dead Days (no classes)

**Wednesday-Tuesday, May 17-23**

Final examinations

**Saturday-Sunday, May 27-28**

Baccalaureate Mass, Commencements

**Thursday, June 1**

Deadline to apply for Fall/Spring, 1995-1996

Installment Payment Plan

**1995 SUMMER SESSION (OPTIONAL):**

**Thursday, June 1**

First day of first session

**Wednesday, August 23**

Last day of last session

See *Summer Session Bulletin* for specific courses, dates, and registration procedures

**1995 FALL SEMESTER:**

**Monday-Tuesday, August 28-29**

New Student Orientation

**Wednesday-Friday, August 30-31, September 1**

Registration and fee payment dates for new and returning students (for evening students: registration 5-7 p.m., before evening classes during first week of classes, except Friday evening)

**Saturday, September 2**

Late registration fee begins

**Tuesday, September 5**

Classes begin

**Friday, September 8**

University Mass of the Holy Spirit, 12:00 noon





## 6 ■ CALENDAR

**Monday, September 11**

Deadline 100% tuition refund

**Monday, September 18**

Last day to enroll in classes

Deadline to select grade or Pass/Fail option

Deadline 90% tuition refund

**Monday, September 25**

Deadline 80% tuition refund

**Monday, October 2**

Deadline 70% tuition refund

**Monday, October 9**

First 60% tuition refund

Deadline for registration and payment for GE

Competency Examinations

**Monday, October 16**

Final deadline 60% tuition refund

Financial aid applications for January Intercession available

**Friday, October 20**

Fall holiday (no classes)

**Monday, October 23**

Mid-term grades due

Class reservations begin for Spring, 1996

Deadline 50% tuition refund

**Friday, October 27**

Last day to register with School of Education for Spring, 1996 field placements

**Monday, October 30**

Deadline 40% tuition refund

**Wednesday, November 1**

Deadline to apply for Spring, 1996

Installment Payment Plan

**Friday, November 3**

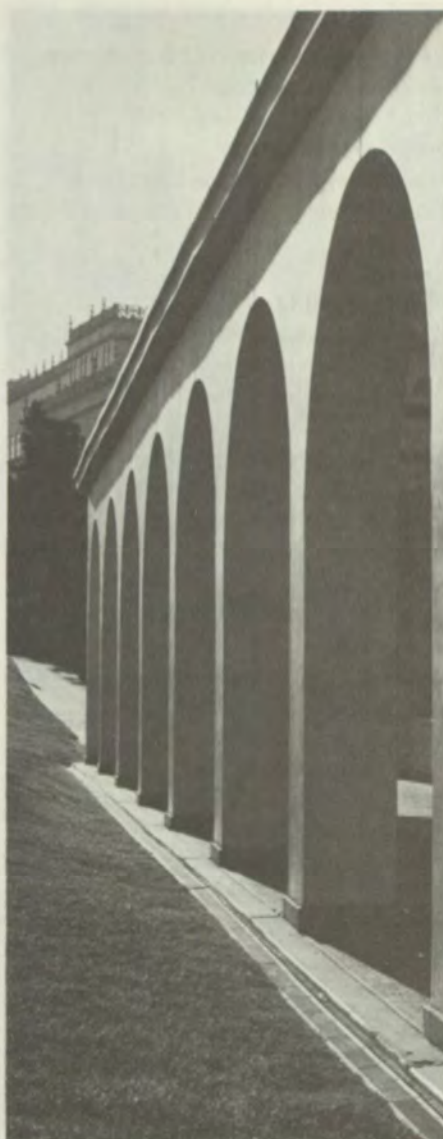
Priority deadline for January Intercession financial aid applications

**Saturday, November 4**

Competency Examinations: Mathematics and Foreign Languages

**Saturday, November 11**

Competency Examinations: Logic, Lower Division Composition and Advanced Writing Proficiency



**Monday, November 13**

Last day to withdraw from classes

Deadline for removal of Incompletes from prior semester

**Thursday-Friday, November 23-24**

Thanksgiving holiday (no classes)

**Monday-Friday, December 4-8**

Last week of classes

**Tuesday, December 5**

Freshman class reservations (no classes until 4:00 p.m.)

**Friday, December 8**

Last day of classes.

Last day to petition for January, 1997 graduation

**Monday-Saturday, December 11-16**

Final examinations

### 1996 INTERSESSION (OPTIONAL)

**Wednesday, January 3**

First day of Intercession classes

**Wednesday, January 24**

Last day of Intercession classes

See the 1996 *Intercession Bulletin* for specific courses, dates and registration procedures

### 1996 SPRING SEMESTER

**Monday, January 29**

New Student Orientation

**Monday-Tuesday, January 29-30**

Registration and fee payment dates for new and returning students (for evening students: registration 5-7 p.m. before evening classes during first week of classes, except Friday evening)

**Wednesday, January 31**

Classes begin

Late registration fee begins

**Friday, February 2**

University Faith Service, 12:00 noon

**Tuesday, February 6**

Deadline 100% tuition refund

**Tuesday, February 13**

Deadline 90% tuition refund

Last day to enroll in classes

Deadline to select grade or Pass/Fail option

**Tuesday, February 20**

Deadline 80% tuition refund

Priority deadline for USD financial aid applications for Fall and/or Spring semesters, 1996-1997 for new (freshmen and transfer) undergraduate students

**Tuesday, February 27**

Deadline 70% tuition refund

**Tuesday, March 5**

First 60% tuition refund

Deadline for registration and payment for GE Competency Examinations

**Monday-Friday, March 11-15**

Spring break (no classes)



**Monday, March 11**

Financial aid applications for Summer Sessions available

**Tuesday, March 12**

Final deadline 60% tuition refund

**Tuesday, March 19**

Deadline 50% tuition refund

**Monday, March 25**

Mid-term grades due  
Class reservations begin for Fall, 1996

**Tuesday, March 26**

Deadline 40% tuition refund

**Friday, March 29**

Priority deadline for Summer Sessions financial aid applications  
Last day to register with School of Education for Fall, 1996 field placements

**Saturday, March 30**

Competency Examinations: Mathematics and Foreign Languages

**Monday, April 1**

Priority deadline for USD financial aid applications for Fall and/or Spring semesters, 1996-1997 for continuing undergraduate students

**Wednesday, April 3**

Last day of classes before Easter holiday

**Thursday-Friday, April 4-5**

Holy Thursday, Good Friday (holidays)

**Monday, April 8**

Classes reconvene after Easter holiday

**Tuesday, April 9**

Last day to withdraw from classes  
Deadline for removal of Incompletes from the prior semester

**Saturday, April 13**

Competency Examinations: Logic, Lower Division Composition and Advanced Writing Proficiency

**Monday-Friday, May 6-10**

Last week of classes

**Tuesday, May 7**

Honors Convocation

**Wednesday, May 8**

Freshmen class reservations (no classes until 4:00 p.m.)

**Friday, May 10**

Last day of classes  
Last day to petition for May/August, 1997 graduation

**Monday-Tuesday, May 13-14**

Dead Days (no classes)

**Wednesday-Tuesday, May 15-21**

Final examinations

**Saturday-Sunday, May 25-26**

Baccalaureate Mass, Commencements

**Monday, June 3**

Deadline to apply for Fall/Spring, 1996-1997 Installment Payment Plan

**1996 SUMMER SESSION (OPTIONAL)**

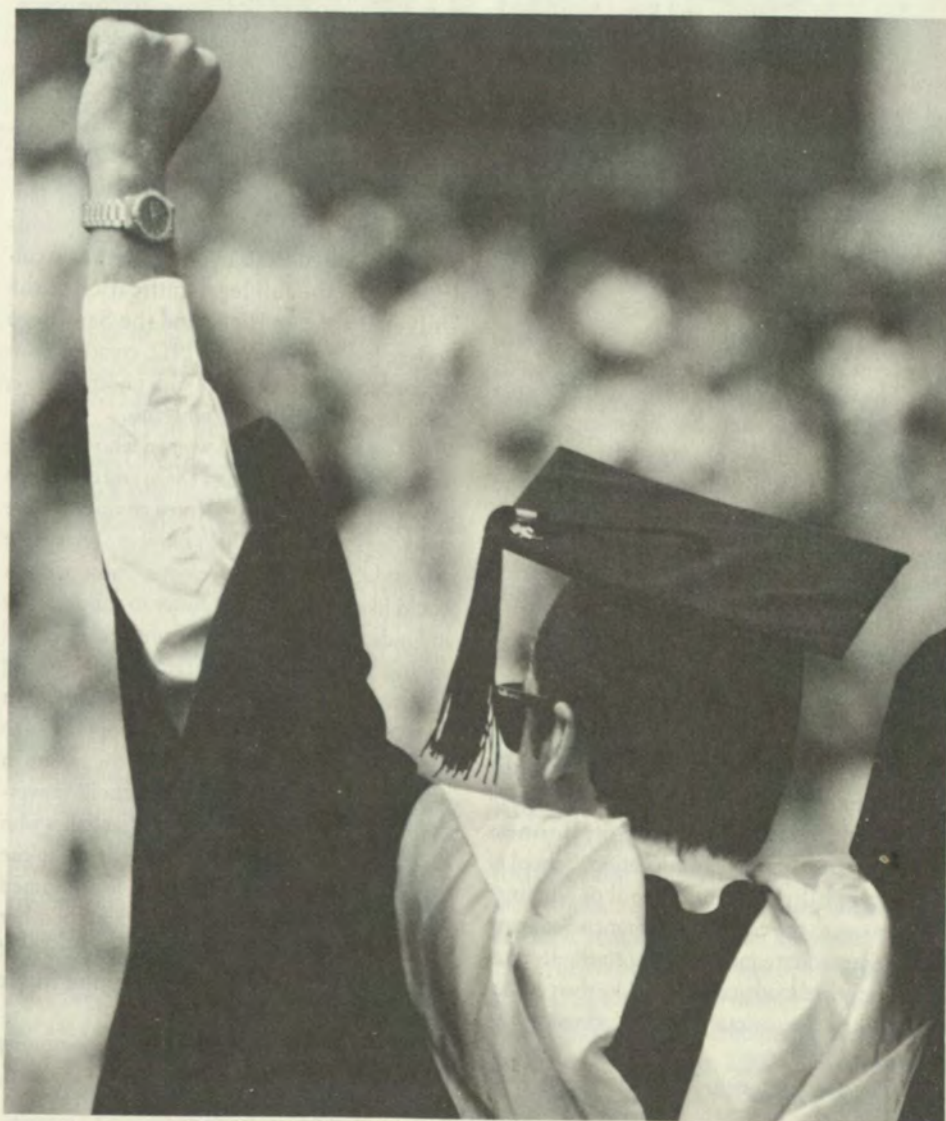
**Monday, June 3**

First day of first session

**Friday, August 23**

Last day of last session

See the 1996 Summer Session Bulletin for specific courses, dates, and registration procedures





## 8 OFFICIAL RECOGNITION

### OFFICIAL RECOGNITION

The University of San Diego is incorporated under the laws of the State of California and is invested with full power to confer degrees. It is accredited by The Western Association of Schools and Colleges, and is approved for veterans. The Philip Y. Hahn School of Nursing baccalaureate and master's programs are accredited by the National League for Nursing. The undergraduate and graduate programs of the School of Business Administration are accredited by the American Assembly of Collegiate Schools of Business. The USD Department of Chemistry is on the list of colleges and universities approved by the American Chemical Society (ACS).

The School of Education is authorized by the Commission on Teacher Credentialing of the State of California to recommend candidates for the Multiple Subject (elementary) and Single Subject (secondary) teaching credentials, the Bilingual Specialist and the Specialist in Special Education credentials, and the Administrative Services, School Nurse, and Pupil Personnel Services credentials.

The Dual B.S./B.A. Degree Program in Electrical Engineering is a Professional Program accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET).

### THE UNIVERSITY OF SAN DIEGO

*A Non-Profit Corporation*

The University of San Diego is a California Non-Profit Corporation. Subject to any limitations contained in the general non-profit corporation law of the State of California, the powers of the University of San Diego corporation are exercised, its property controlled, and its affairs conducted by a Board of Trustees.

### THE UNIVERSITY

*Its Past and Its Present*

The independent University which bears the city's name was chartered in 1949. Today the University of San Diego includes the College of Arts and Sciences, School of Business Administration, School of Education, School of Law, and Philip Y. Hahn School of Nursing. Contiguous to the campus is St. Francis Seminary for undergraduate men aspiring to the Roman Catholic priesthood; its students take their academic work in the various programs offered by the University.

The years since the University's founding

have evidenced a steady development. The San Diego College for Women, the first unit of the University at Alcalá Park, began classes in February, 1952. It was erected, financed, and equipped by the Society of the Sacred Heart, under the leadership of Reverend Mother Rosalie Hill, R.S.C.J. St. Madeleine Sophie Barat founded the Society of the Sacred Heart in France in 1800; it was brought to America by St. Philippine Duchesne in 1818. Today, it has schools and colleges in Europe, Asia, Africa, Australia, and the two Americas.

The second unit of the University, the College for Men, sponsored by the Diocese of San Diego, was opened in 1954. Its founder, the Most Reverend Charles F. Buddy, first Bishop of San Diego, envisioned its increasingly influential position in education both for the diocese and for the San Diego community.

The first professional school on the Alcalá Park campus, the School of Law, was inaugurated in 1954. It offers a three-year full-time day program and a four-year part-time evening program, both leading to the Juris Doctor (J.D.) degree. The School of Law also offers the Master of Laws (LL.M.) degree.

Change and innovation have marked the educational development of the University of San Diego in recent decades. The early efforts to provide richer educational advantages to the students by sharing the curricula of the then separate colleges led to the full legal unification of the University of San Diego and the San Diego College for Women in July, 1972, creating a single coeducational university with undergraduate, graduate, and professional programs.

The young men and women who share the life of the University of San Diego and contribute to its growth are a multi-talented group who have many options in their life's choices. They have chosen USD for various reasons: most of them would like to acquire the power to think clearly and independently, to form sound and discriminating judgments, to satisfy a developing intellectual curiosity, and to accept as their own the values of authentic freedom, openness to change, and responsibility to serve the society in which they live. They attend a Catholic university, and the majority of them are Catholics who share certain commitments and wish to explore vital religious questions in a free, yet informed way; but a high percentage of students of other faiths insures the presentation of a diversity of views, so characteristic of the pluralistic American society.

A friendly campus atmosphere, opportunity for close rapport between faculty and students,

class sizes which facilitate personal attention and instructor accessibility — such are the elements creating the educational environment of the University of San Diego.

### PHILOSOPHY AND MISSION OF THE UNIVERSITY OF SAN DIEGO

The University of San Diego is a community of scholars. It shares with all institutions of higher education the search for truth and the pursuit of academic excellence. Students of all races, creeds, and cultural backgrounds are welcome to join the intellectual quest.

The University is committed to ideals of liberal education which emphasize the potentialities of men and women as human beings and creatures of God. Specialized study in the individual disciplines and in the professions builds upon a General Education program which both examines the interrelatedness of knowledge and explores the relevance of knowledge to contemporary issues.

By the intent of its founders and by the mandate of its corporate declaration, the University is a Roman Catholic institution. Its distinctive characteristic within the pluralistic system of American higher education is that it is both independent and Catholic. It is independent in that ultimate responsibility for the governance of the University lies in its own Board of Trustees. It is Catholic by virtue of its commitment to witness to and probe the Christian message as proclaimed by the Catholic Church.

The University aims to respect the dignity of every person who becomes a part of its community. It affords the opportunity for sharing ideas and values from many different traditions, and fosters a climate within which all members of the University community have opportunity for free inquiry and expression. Increased understanding of each other should lead to awareness of a serious responsibility toward all humanity.

Because of the kind of institution the University of San Diego envisions itself to be, it has set as its mission the establishment of a distinctive quality and identity within the diversity of institutions of higher education. Accordingly, the University strives:

1. To foster freedom of inquiry and expression in the quest for truth;
2. To engender a climate conducive to the spiritual, intellectual, cultural, and social development of all members of the University community;
3. To afford each individual the opportunity to



strengthen a personal philosophy and value system as the basis for integration of behavior and belief;

4. To create an environment of human concern wherein excellence in teaching and disciplined learning interact to the maximum benefit of each member of the University community;
5. To explore the Catholic tradition in the continuing search for meaning in contemporary life;
6. To promote Christian ecumenism and the on-going dialogue among peoples of all religions;
7. To provide service to the community consistent with the University's identity as an academic institution;
8. To evaluate the past conscientiously both for its own sake and because of the crucial continuity of the past and the present; and
9. To provide a basis for reflection and critical judgment on contemporary social and moral issues in a worldwide context.

Striving for academic excellence, strengthening the liberal arts tradition, and maintaining priority on effective teaching form the cornerstone of the University's educational approach.

## UNIVERSITY MINISTRY

The Department of University Ministry reflects the Catholic character of the University of San Diego and provides for the pastoral care of the campus community by: developing and supporting an active Catholic faith community on campus; fostering spiritual enrichment and ecumenical outreach for students, faculty, administrators, and staff; helping students to integrate faith and life; and encouraging leadership through Christian service.

Students, faculty, staff, and administrators are all welcome participants in ministry programs. University Ministry seeks to foster gospel values by developing opportunities to promote the integration of spiritual values in the lives of those who seek enrichment and growth in faith.

## THE CAMPUS

The University of San Diego campus is a 175-acre tableland at the western end of Kearny Mesa, high on a hill commanding inspiring views of the Pacific Ocean, Mission Bay, San Diego harbor, and the surrounding mountains. The campus, named Alcalá Park, after the Spanish university city of Alcalá, scene of the labors of St. Didacus (San Diego), is superbly located in an urban area,



ideally close to the business, cultural, residential, and recreational areas of California's birthplace and second largest city.

Alcalá Park's buildings include the Immaculata Church; the School of Law (Warren Hall); the Katherine M. and George M. Pardee, Jr. Legal Research Center; the Helen K. and James S. Copley Library; the School of Business (Olin Hall); the School of Education (Harmon Hall); the Philip Y. Hahn School of Nursing; the Ernest and Jean Hahn University Center (which includes the University Dining Room, Marketplace, Courtyard Grille, Student Affairs, Associated Students and Campus Ministry offices, undergraduate and graduate student organization offices, computer and typing room, as well as lounge and activity space); the Manchester Executive Conference Center; seven administrative and classroom buildings (Serra, Maher, Camino, Founders, Guadalupe, Loma, Hughes); the Bookstore/Mail Center facilities in Loma Hall; the Shiley Theatre; and residence areas. Located at the east end of campus are: the Mission Housing Complex; Alcalá Vista Apartments; graduate student residence apartments; the Manchester Family Child

Development Center; and the University recreation center, which includes an Olympic-size swimming pool, gymnasium, stadium, and tennis courts.

Here, in sunny Southern California, in the nation's sixth largest city, students find a truly fascinating variety of leisure-time activities, including visits to the city's outstanding zoo, the museums, the old Spanish missions, the theatre, swimming (in the large university pool and in the bay and ocean), boating, surfing, tennis, golf, and many others. Proximity to Mexico provides an excellent opportunity for gaining a first-hand insight into Mexican culture.

## Academic Facilities

The University provides modern and comfortable classrooms, fully-equipped science laboratories, a language laboratory, libraries, and academic computing facilities for student use.

The Helen K. and James S. Copley Library, located on the west end of the campus, houses over 300,000 books and bound periodicals and includes subscriptions to 2,000 journals as well as collections of reference works, government documents, pamphlets, newspapers in many languages,



## 10 ■ ACADEMIC FACILITIES

and rare books. Eight library faculty and additional professional and support staff make the collection available to the University community.

A library computer system has replaced the card catalog and the files of many library operations. This system (SALLY) gives access to Copley Library's books and periodicals as well as the software holdings of the Media Center and the books and periodicals of the Legal Research Center.

Copley Library is open 95 hours each week and its resources are organized in accessible, open stacks. Library faculty provide extensive reference service and spend time working individually with students as they complete assignments and prepare papers, speeches, and research reports of all kinds.

In addition to its own collection, Copley Library has network connections with most academic and large public libraries in North America and with major national bibliographic and information databases and can make the resources of these libraries and databases available to students and faculty. Many databases are directly accessible to students from computer terminals in the library.

Photocopy machines and microform reader/printers are available for student use.

Study spaces are available for over 700 students and include group study areas, quiet carrels, and pleasant reading rooms furnished with antiques and contemporary art.

The Legal Research Center, on the east end of campus, houses a collection of over 305,000 volumes, and serves students and faculty of the School of Law. Any USD student or faculty member needing information from legal materials may use the collection.

The Media Center, a department of Copley Library, is located on the ground floor of Maher Hall. The center's staff offers three major services. The first is the support of classroom instruction with five audiovisual classrooms in the center as well as satellite audiovisual classrooms in other buildings. Audiovisual hardware and software are delivered throughout the campus for classroom use.

The second service is the provision of non-print media materials with 40 carrels for individual use of video, projection, audio, and computer media. Four audio interactive units allow listening to and recording of foreign language materials and there are interactive videodisc stations.

As its third service, the Media Center offers the use of the University's permanent collection of approximately over 4,200 audiovisual titles and also offers a reserve collection of audiovisual

materials. It has the staff, facilities, and equipment necessary to produce original software for use in meeting unique instructional needs.

In addition to these centralized services, the Media Center supports major audiovisual facilities such as a language laboratory in the Department of Foreign Languages and Literatures, a Learning Resource Center in the Philip Y. Hahn School of Nursing, a behavioral laboratory in the School of Business Administration, and extensive video production facilities in the School of Law.

Academic Computing supports instructional microcomputing facilities. A campus-wide ethernet provides access to a VAX 8550 under VMS, a DECSystem 5810/RISC running Ultrix, and a VAX 6310 under Ultrix with the combined libraries catalog system (SALLY).

Lab facilities include: two networked teaching laboratories (Macintosh and PC); one general lab with Macintoshes, PCs, terminals, and printers; a SUN workstation lab; a classroom with Macintosh LCs; and a terminal room. Olin Hall houses a microcomputer lab of PC-compatible workstations networked using a NOVELL server with gateway to the campus net. All lab workstations have access to the campus network.

### Building Designations

AV - Alcalá Vista Apartments  
C - Camino Hall  
CD - Child Development Center  
CL - Copley Library  
F - Founders Hall  
G - Guadalupe Hall  
HC - Hughes Center  
HH - Harmon Hall  
LH - Loma Hall  
LL - Legal Research Center  
M - Manchester Conference Center  
MC - Mission Crossroads  
MH - Maher Hall  
O - Olin Hall  
PP - Physical Plant  
S - Serra Hall  
SC - Sports Center  
SH - Sacred Heart Hall  
SN - Hahn Pavilion  
UC - University Center  
WH - Warren Hall Law School

### Manchester Family Child Development Center

The primary goal of the Manchester Family Child Development Center is to offer a safe and enriching environment in which children can share, grow and learn in multi-age groups. It offers a rich, stimulating setting that is warm and supportive of each child's individual learning pace.

The Center enrolls children of University employees, students and alumni. The children must be between the ages of 2 1/2 to 5 years. Children of students may attend part-time, either five mornings or five afternoons, at a reduced fee. Students may apply for up to ten hours of work per week to help defray expenses. Volunteers are encouraged. The Center operates ten hours per day, Monday through Friday, 48 weeks per year.

### Student Residences

Residence halls are an integral part of the University's basic goal of developing the whole student. To achieve this goal, residence halls are not only a place to reside and study, but also a place that provides an environment where the student can have experiences which enhance personal growth and development.

Resident living accommodations currently house approximately 1800 undergraduate students. Rooms are available in traditional "dormitory" style, suite-style living areas and apartment units. Residence hall staff includes live-in Resident Directors and Resident Assistants.

Residence halls will be open for occupancy two days before the first day of each semester. Each room must be vacated 24 hours after the student's last final examination or noon on the day following the last day of final examinations. The residence halls will be closed during Christmas, Intersession and Spring Break. The academic year housing contract does not include housing during these vacation periods, although students may leave personal belongings in their rooms. Students have the option of contracting for housing during Intersession or Spring Break if they will be involved in academic coursework at USD or if special circumstances will not permit them to depart from campus during those times. Specific terms and conditions regarding student housing will be included in the Housing and Dining Services Contract that is mailed to all incoming resident students.

### Dining Services

The USD Dining Services are dedicated to providing students with wholesome, nutritious meals. To this end, a variety of foods, including adequate nutrition for vegetarians, is offered. Meals are available in a number of locations to students on Board contracts. Locations include the Main Dining Room, Courtyard Grille, Deli and Marketplace. Off-campus students may choose from a variety of meal plans or dine on a cash basis.



## STUDENT LIFE

Students attending the University live by the guidance of the *Student Code of Rights and Responsibilities*. Other rules and regulations promulgated by departments of the University are also guidelines for student conduct, such as the policy on Academic Integrity and the University Parking Regulations. Copies of these policies are available upon request at the Student Affairs office.

### Grievances

Students who believe they have grievances regarding USD's policy of non-discrimination toward the disabled or in other civil rights requirements may consult the Dean of Academic Services, Dr. Cynthia Villis, or the Dean of the appropriate School or College if the problem concerns an academic matter; the Vice President for Student Affairs, Mr. Thomas Burke, for concerns about student services; the Director of Physical Plant, Mr. Roger Manion, for problems in use of physical facilities; or the Provost, Sister Sally Furry, overall coordinator of civil rights compliance.

### Student Government and Activities

All undergraduate students belong to the Associated Students of the University of San Diego, a self-governing group acting under the authority given by its approved Associated Students Constitution. Officers of the Associated Students (AS) and members of its governing board are elected or appointed by the students. Under their leadership, the students plan and manage student events and funds. Through participation on several faculty and faculty-administration committees, students share in decisions on academic and disciplinary affairs.

The Associated Students serve as both the student government and student programming board for the USD campus. Working together to represent the concerns of USD's students, the AS President along with the Executive Board, Senate, Program Board and the Student Issues Board seek solutions and strive to add to all students' college experience.

A further responsibility of the Associated Students is to plan and organize activities for the student body using the AS fee collected at the beginning of each semester.

### Associated Students Committees

**Academics:** This committee is responsible for representing student concerns on academic matters. Planning faculty forums and distributing student research grants are just some of the responsibilities of this committee.

**Asylum:** This committee publishes USD's literary magazine, the *Asylum*, and also coordinates the popular Café Asylum.

**Athletics:** This committee promotes each individual sport and works to promote school spirit. The committee coordinates tailgate parties, pep rallies and bus trips to "away" games.

**Budget:** This committee consists of individuals who meet on a weekly basis to decide the allocation of funds to USD's various clubs and organizations.

**Community Service:** The Community Service committee is responsible for out-reach and service to the San Diego community. Numerous ongoing projects link service with learning about social issues. Activities include working with the homeless, senior citizens and youth.

**Concert Series:** This committee provides quality music entertainment. Members participate in stage crew, production, hospitality, security and publicity for major concerts, as well as many musical events held at the Ernest and Jean Hahn University Center.

**Corporate Relations:** The Corporate Relations committee establishes contact with and gains support of companies outside of USD.

**Cultural Arts:** This committee is responsible for a weekly music series which features unique entertainment. In an attempt to broaden the experience of campus life, events that highlight the diverse makeup of the USD community are presented.

**Elections:** This committee is involved in helping to organize elections, enforcing campaign policies and running the voting booths.

**Film Forum:** Ordering, splicing, setting up and showing first-run or yet-to-be-released movies is the responsibility of this committee.

**Graphic Design:** This department prepares advertising materials ranging from flyers, posters and banners to full-sized displays.

**Public Relations:** This committee publishes the *AS Communicator*, which provides excellent opportunities in journalism, graphic design and public relations.

**Showcase:** This committee coordinates the entertainment for the Thursday Night Happy Hour, which ranges from comedians to magicians and hypnotists. Opportunities are available in publicity, hospitality and production.

**Social:** The Social committee is responsible for planning all of the traditional events on campus including Homecoming and Spring Ball. Other events may include trips to such places as Magic Mountain, The Tonight Show, The Price is Right and Padres' games.

**Speakers Bureau:** The Speakers Bureau's

responsibility is to develop a line-up of speakers who lecture on campus on such diverse topics as politics, entertainment, business and education.

**Student Court:** Responsibilities for these committees include conducting the student court which deals with parking violations, and reviewing and approving all proposed club constitutions from groups seeking official AS recognition.

**Yearbook:** The yearbook staff is responsible for the total production of the *Alcalá*, which includes photography, graphic design, advertising, artwork and layouts, reporting and creative writing. No experience is required.

## UNDERGRADUATE STUDENT CLUBS AND ORGANIZATIONS

### ACADEMIC AND PROFESSIONAL ORGANIZATIONS

**Accounting Society** promotes interaction of accounting students in academic, community and professional endeavors.

**Alpha Epsilon Delta** provides information and opportunities for people interested in a professional health-related career.

**Alpha Kappa Psi** seeks to increase student knowledge and awareness in the ever changing field of business.

**American Humanics Association** provides speakers, field trips and seminars for students interested in leadership careers in human service organizations.

**American Marketing Association** is a business club which provides activities aimed at getting students in closer contact with the business world.

**Beta Alpha Psi** is a national professional accounting fraternity for persons who have achieved excellence in the field of accounting.

**Biology Club** is open to anyone with an interest in the biological sciences.

**Chemistry Club** is an organization providing social, service and professional activities for Chemistry majors and those interested in science.

**Communications Studies Society** provides Communication Studies majors with an opportunity to unite for professional development and social activities.

**Delta Sigma Pi** provides business students with an outlet for learning beyond the classroom.

**Institute of Electrical and Electronics Engineers, Inc.** The Student Branch at USD is a professional organization open to all students who are members of IEEE. The Student Branch gives students the opportunity to meet and learn from fellow students and faculty members from USD and other universities, as well as to interact with professionals in a number of career areas within the field.



## 12 ■ ORGANIZATIONS

**Mathematics and Computer Science Club** fosters an understanding of the science of mathematics and computer science within the USD community.

**Oceans Club** is comprised of marine science and ocean studies majors and other interested students.

**Phi Alpha Delta** is an undergraduate pre-law fraternity for students with an interest in many aspects of law or the legal system.

**Psychology Club** is available to stimulate, encourage and maintain the academic and professional growth of students interested in the field of psychology.

**Society of Women Engineers** student section at USD is a non-profit educational service organization comprised of women and men who support the advancement of women in engineering. Members participate in and organize professional and service activities at USD, with student sections at other universities, and with professional members of the nationwide SWE organization.

**Undergraduate Nursing Association** provides representation and support between nursing students and faculty.

### CULTURAL, LANGUAGE AND ETHNIC ORGANIZATIONS

**Aikane O'Hawaii** is for new or transfer students from the Hawaiian islands and assists in the transition to USD and campus life.

**Asian Students Association** fosters and furthers the knowledge of the Asian community as it is represented at USD.

**Black Student Union** provides a program to increase recruitment and retention of African-American students and provide opportunities for increased sensitivity towards minority citizens.

**Filipino "Ugnayan" Student Organization** considers cultural identity, self-esteem, academic performance and the holistic development of the Filipino-American student.

**French Club** promotes the French culture and language through campus activities.

**German Club** is an organization for those who share a common interest in the German language and culture.

**International Students Organization** sponsors cultural activities and promotes understanding among people of different ethnic backgrounds.

**Italian Club** is available to students interested in cultural and community activities and in Italian culture.

**Movimiento Estudiantil Chicana/o de Aztlan** was established to unify students on cam-

pus with the community of Chicano/Latino origin as one strong organization.

**Spanish Club** seeks to familiarize the students with the language and culture of the Spanish-speaking people.

**Student Alliance Embracing Sexual Orientation** is a fellowship organization of undergraduate men and women who are both gay and non-gay. Their purpose is to offer friendship, alliance and mutual assistance to students working through the process of embracing their sexual orientation.

**World Networking Society** networks between senior students and postgraduate students of USD overseas to promote USD throughout the world and to provide consultation on international relocation.

### FRATERNITIES AND SORORITIES

All of the following Greek-letter organizations offer lifelong friendships, activities in support of academic excellence in all major fields, opportunities for community service, campus involvement networking with alumni and social activities. Students are eligible for membership after completing one semester at USD (unless transferring in with 24 or more units of college credit). The women's groups are coordinated by

the Panhellenic Association, and the men's groups are coordinated by the Interfraternity Council. National Order of Omega is an honorary organization for leaders within the Greek system.

#### International Women's Fraternities/Sororities:

Alpha Delta Pi  
Alpha Phi  
Gamma Phi Beta  
Zeta Tau Alpha

#### Men's Fraternities:

Delta Tau Delta  
Phi Kappa Theta  
Sigma Chi  
Sigma Pi

### RECREATIONAL AND SPORTS CLUBS

Alpine Ski Team  
Cycling Club  
Hacky Sac Club  
LaCrosse Club  
Racquetball Club  
Recreational Golf Club  
Rock-Climbing Club  
Roller Hockey Club  
Rugby Club  
Street Hockey Club  
Surf Club  
USD Cheerleaders  
Volleyball Club  
Water Ski Club  
Waterpolo Club  
Wrestling Club





## OTHER STUDENT ORGANIZATIONS

**Actors Anonymous** is USD's undergraduate theatre group, giving interested students the opportunity to act, direct, produce and participate in all aspects of theatrical productions.

**Alcalá Club** provides service to the University of San Diego, acts as official representatives of USD on request and provides service to the San Diego community in general. Members are selected on the basis of academic achievement, leadership and dependability.

**College Democrats** is a group of students who work on all levels of political campaigns for Democratic candidates.

**College Republicans** provide information on the views and beliefs of the Republican Party and its candidates.

**Fellowship of Christian Athletes** seeks to present to athletes and coaches and all whom they influence the challenge and adventure of receiving Jesus Christ as Savior and Lord, and of serving Him in their relationships and in fellowship of the church.

**InterVarsity Christian Fellowship** is a forum to bring together Christians and non-Christians alike through Bible studies, outreach and social events.

**"O" Club** promotes the knowledge of the national defense and develops future leaders for the United States Navy and Marine Corps.

**Rotaract** is the USD branch of Rotary International.

**Sacred Heart Club** was established for those students of USD whose parents are alumni/ae of the University of San Diego.

**Student Environmental Action Club** creates an awareness on campus of environmental problems.

**Student Alumni Association** is comprised of a group of undergraduate leaders who work closely with the Alumni Relations Office to promote student interaction in alumni/ae activities.

**Students Who Are Parents** is a support group for USD students who have children.

## Volunteer Resources

The Volunteer Resource Office, (located in the Hahn University Center) provides support and community liaison to three faculty, student and administrative committees that plan and implement community service and social issues programs. The Associated Students have an active Community Service Committee, which sponsors a wide range of volunteer projects. The Social Issues Committee provides learning opportunities through annual theme events such as team-taught classes, speakers, faculty forums, and cultural events. The Experiential Education

Committee fosters learning through experiences that include community internship placements. These activities reinforce the USD commitment to the continuing search for meaning in contemporary life.

## Honor Societies

**ALPHA EPSILON DELTA** is the International Pre-Medical Honor Society. Its goals are to improve the quality of pre-medical education and to promote cooperation between pre-medical students, medical students and educators.

**BETA ALPHA PSI** is the National Accounting Fraternity.

**BETA GAMMA SIGMA** is the National Business Fraternity.

**DELTA EPSILON SIGMA** is the National Scholastic Honor Society for undergraduates, graduates and alumni/ae. Its purpose is to recognize academic accomplishments, foster scholarly activities and provide an intellectual meeting ground for its members.

**ETA KAPPA NU ASSOCIATION** is the National Electrical Engineering Honor Society. Its goal is to recognize those who have chosen the profession of Electrical Engineering who have achieved distinguished scholarship, outstanding service and leadership to the profession and to the community, and who have exhibited exemplary character. It also seeks to bring those members into a closer union so as to foster a spirit of liberal culture in the engineering community and to aid in their continuing professional development through association with alumni and others who have attained prominence.

**KAPPA GAMMA PI** is the National Scholastic and Activity Honor Society for Catholic College women and men, in which students who graduate with honors and who have been outstanding for character, service and leadership are eligible for membership.

**LAMBDA ALPHA** National Honorary Society for Anthropology recognizes outstanding scholarship in anthropological studies and supports inquiry into the study of human cultures.

**OMICRON DELTA EPSILON** is open to economics majors who have demonstrated excellence in the study of economics. Membership makes available participation in extracurricular programs, lectures, discussions and meetings furthering the study of economics.

**PHI ALPHA THETA** is the international Honor Society in History. Its goal is to promote the study of history by the encouragement of good teaching, research, publication and the exchange of learning and thought among historians.

**PHI SIGMA TAU** is the national Honor

Society for majors and minors in Philosophy. Its purposes are to recognize academic accomplishments, foster scholarship and provide an intellectual and social meeting ground for its members.

**PI DELTA PHI** is the National French Honor Society, in which French majors and minors who maintain a high scholastic standing and serve actively in the French Club are eligible for membership.

**PI SIGMA ALPHA**, the National Political Science Honor Society has a chapter, Theta Mu, on campus. It is open to majors in Political Science and International Relations who have demonstrated superior ability in these disciplines.

**PSI CHI** National Honor Society in Psychology provides recognition for outstanding scholarship and seeks to advance the science of psychology by providing programs which augment the regular curriculum.

**SIGMA DELTA PI** is the National Spanish Honor Society in which Spanish majors and minors who maintain a high scholastic standing and serve actively in the Spanish Club are eligible for membership.

**SIGMA PSI** is a mathematics and science society, the aims of which are to encourage a professional spirit and friendship among those who display a marked interest in science and mathematics, to aid student efforts in science and mathematics by accumulating sources of information on recent developments in these fields, and to foster individual and joint mathematics and science research projects.

**SIGMA THETA TAU**, the national nursing honor society, has a chapter, Zeta Mu, on campus. Membership is an honor conferred on students who have demonstrated excellence in their nursing programs.

**THETA ALPHA KAPPA**, the national honor society for Theology and Religious Studies, recognizes outstanding scholarship in theological and religious studies and supports further study of these subjects. Membership is an honor conferred on students who have demonstrated academic excellence in these fields and in their general education.

## Cultural Activities

The University recognizes the importance of exposing students to various programs and activities that are culturally enriching. Throughout the academic year events are planned on campus to complement classroom study and to broaden the experience of the student. In order to give all an opportunity to see and hear performances by artists of acclaim, the University sponsors concerts by professional artists and brings to the



campus professionally executed programs in drama, dance and music.

The University sponsors a professional art exhibition facility, FOUNDERS GALLERY. There, under the supervision of the Director of Galleries, students actively participate in the frequent presentation of exhibitions of diverse media and a wide range of expression. Recognized masters and the finest contemporary artists comprise the balanced program of uniform excellence which has merited Founders Gallery the highest critical acclaim. Founders Gallery also serves as a laboratory for students in Museum Studies, Exhibition Design, and the Art in Public Service Programs.

Several musical groups exist on campus. The UNIVERSITY COMMUNITY CONCERT CHOIR presents a comprehensive program of choral music every semester as a part of USD's musical life. Membership is by audition only and is open to students, faculty, staff and members of the San Diego community.

The UNIVERSITY OF SAN DIEGO SYMPHONY ORCHESTRA performs each semester. Membership is by audition and is open to students, faculty and members of the San Diego community.

The CHORAL SCHOLARS program specializes in popular and classical styles. Membership is by audition and is only open to students.

The OPERA WORKSHOP is a production course open to all students trained and untrained as a learning experience in all phases of musical theatre.

Music faculty and guest artists appear each semester on campus to present professional concerts, spanning all areas of classical music, including early music performance on historical instruments to modern music.

A noon series of concerts in the French Parlor further enriches campus cultural life.

THEATRE ARTS presents a fully mounted production in both Fall and Spring semesters. Actors Anonymous, the student producing group, offers a lunch-time theatre series and other performance-oriented events each term.

THE MASTER OF FINE ARTS PROGRAM, jointly sponsored by the University of San Diego and the renowned Old Globe Theatre in San Diego, offers several productions each year on campus.

## Recreation

The USD Athletic and Recreation Department offers students a variety of participation and spectator activities throughout the academic year.

Staff and students are encouraged to use the facilities of the Student Sports Center. Facilities include: heated outdoor swimming pool, a six-basket gym, three volleyball courts (two indoor), twelve tennis courts (eight on the west side of campus), weight room, a utility field and jogging track at the west end of the campus, multi-purpose fields behind the Mission Complex, a baseball diamond, a softball field and a floor hockey/indoor soccer rink. A great variety of equipment may be checked out at the Recreation Office with a USD ID card (including softball equipment, footballs, football flags, volleyballs, basketballs, etc.).

The Recreation Department's physical education classes are listed in the *Schedule of Classes* each semester and may be taken for credit. Many of these classes are offered in conjunction with the Mission Bay Aquatic Center, an off-campus facility where USD community members may rent the facility's equipment once they have been trained in its use.

## Outdoor Adventures

Outdoor Adventures, a service of the University Center, is the students' trailhead to high adventure. The primary goal is to provide safe, fun educational outings to the USD community. The most popular outings include camping, backpacking, canoeing, kayaking, whitewater rafting, rock climbing, mountain biking, road biking and others. Outing types are limited only by the imagination and are open to students, faculty/staff and alumni/ae with an alumni card.

## Intramural Sports

With a full schedule of men's, women's and coeducation team and individual sports and activities, the intramural program offers every student, faculty and staff member the opportunity to participate in competitive and recreational sports. Activities include softball, football, basketball, floor hockey, racquetball, bowling, tennis, soccer, golf and running events.

## Athletics

As a member of the National Collegiate Athletic Association (NCAA), the University of San Diego Department of Intercollegiate Athletics, maintains a full program of sports for men and women. Both the men's and women's programs compete in the West Coast Conference. Men's NCAA Division I sports include basketball, baseball, cross-country, golf, tennis, soccer and crew. Football participates in Division I-AA. Women's Division I sports include basketball, cross-country, softball, crew, tennis, swimming, volleyball and soccer.

## Athletic Eligibility

Admission to the University does not imply eligibility to compete in intercollegiate athletics, particularly in the case of students transferring from another college or university. Concerns about athletic eligibility should be directed to the appropriate coach or to the Director of Athletics.

## THE UNIVERSITY OF SAN DIEGO ALUMNI ASSOCIATION

The University of San Diego Alumni Association promotes the involvement of USD graduates in the ongoing life of the University, informs alumni/ae of University activities, and provides benefits, services, and volunteer opportunities both in and outside of San Diego. Governed by a 30-person Board of Directors, the Association plans and implements Class Reunions, Homecoming, the Alumni Mass, the Alumni Summit, and other special events. Affiliated alumni/ae groups are:

THE ALUMNAE OF THE SACRED HEART is a unit of the national Associated Alumnae of the Sacred Heart, an organization of former students and graduates of the Sacred Heart Schools throughout the world, organized to promote the beliefs and traditions of Sacred Heart education.

LAW SCHOOL ALUMNI provides support and guidance to law students and sponsors continuing education for members and students. The association guides the Law Annual Fund efforts and hosts social events for its membership and the Law School community.

USD GRADUATE SCHOOL OF BUSINESS ALUMNI ASSOCIATION promotes the interest of the University and the Graduate School of Business and maintains a mutually beneficial relationship between the alumni/ae and the University.

USD SCHOOL OF EDUCATION ALUMNI ASSOCIATION provides activities and programs designed to encourage educational, social and career development aspects of the School of Education and the University.

## ANCILLARY ORGANIZATIONS

THE UNIVERSITY OF SAN DIEGO AUXILIARY is a women's group organized to promote the interest of the University in the community.

THE PRESIDENT'S CLUB is a group of benefactors who support the University with a substantial annual gift and represent the University in a special capacity to the community.

THE ALCALÁ SOCIETY is a group of





men and women dedicated to perpetuating the spiritual and educational values embodied in the University by making a gift at the level necessary for society membership.

**THE FRIENDS OF THE LIBRARY** provides support for the Copley Library and its programs.

**THE FRIENDS OF MUSIC** provides support for the Department of Fine Arts and its music programs.

**THE PARENTS ASSOCIATION** seeks to provide channels of communication between the University and parents of students.

**THE SACRED HEART ALUMNAE ASSOCIATION** is an active group of Sacred Heart Alumnae from San Diego and Sacred Heart Schools of other cities and nations. Its purpose is to promote Sacred Heart principles of education and keep in touch with all Sacred Heart Alumnae.

## ACADEMIC BENEFACTORS

### THE ERNEST W. HAHN CHAIR OF REAL ESTATE FINANCE

The endowed Hahn Chair of Real Estate

Finance was established to honor Ernest W. Hahn, a long term member of the Board of Trustees of the University of San Diego and its first lay Chairman. Mr. Hahn was a major force in real estate development in California and the nation. The purpose of the Chair is to provide a focal point for the development of real estate education at the University of San Diego.

### THE DEFOREST STRUNK CHAIR OF SPECIAL EDUCATION

The endowed DeForest Strunk Chair of Special Education was established to provide a faculty position in the School of Education's special education program. Dr. Strunk was a Director of the Division of Special Education from 1970 to 1985.

### STEBER PROFESSORSHIPS

The Steber Professorships in Religious Studies and Business Administration have been established to recognize substantial contributions by faculty in the areas of teaching, research, and service. It is expected that one or two of these will be awarded each year. The award will include a stipend and a grant to support research or teach-

ing development. The professorships were made possible through the generosity of the late Clarence L. Steber, a former trustee of the University of San Diego.

## UNIVERSITY BOOKSTORE

The USD Bookstore, located in Loma Hall, stocks all required textbooks (new and used) and school supplies. In addition, there is a selection of general books, calculators, art supplies, cards, gift items, stationery, USD clothing, class rings, and other imprinted merchandise, backpacks, magazines, film and photo processing. The Bookstore also carries computer hardware, software and computer supplies.

Regular semester hours for the Bookstore are as follows:

Monday through Thursday ..... 9 a.m. to 6 p.m.  
Friday and Saturday ..... 9 a.m. to 4 p.m.  
Sunday ..... CLOSED

(Extended hours at the beginning of each semester.)

The USD Bookstore Express Store, located in the Loma Hall lobby, carries a wide variety of snack items including candy, soft drinks, coffee and tea, juices, fresh popcorn, cookies, chips, fresh salads, muffins and danishes. The Express Store also stocks other items such as sundries, vitamins, school supplies, batteries, magazines, newspapers, film, tapes and mugs.

Regular semester hours for the Express Store are as follows:

Monday through Thursday ..... 7:45 a.m. to 6 p.m.  
Friday ..... 7:45 a.m. to 4 p.m.  
Saturday ..... 9 a.m. to 4 p.m.  
Sunday ..... CLOSED

(Extended hours at the beginning of each semester.)

To confirm hours or to ask questions, please call 260-4551.

## STUDENT SERVICES

### Student Health Service

The Health Center is designed to provide primary ambulatory care for students. The Health Center is open from 8:30 a.m. to 4:30 p.m. Monday through Thursday and from 8:30 a.m. to 4:00 p.m. Friday. A registered nurse is available during this time. A doctor is available part time during the week. Major and severe illnesses and injuries, as well as conditions requiring hospitalization are beyond the scope of the Student Health Service and are referred to outside professional facilities. Maintenance allergy antigen injections are given in the Health Center during clinic hours at no charge to students who provide



the antigen and paperwork from their allergist. A 20-minute wait is required after an injection is received. A medical examination and certificate of health are suggested for each entering student. There is a nominal charge for all medication and supplies dispensed from the Health Center. **Health insurance is suggested for all full-time students, if not already covered by another policy. Insurance can be purchased through the University at the Office of Student Affairs.**

#### International Student Advisor

The International Student Advisor has the general responsibility for the welfare of all students attending the University on visas. Services provided include general counseling; information and assistance concerning housing, immigration matters such as re-entries, replacement of lost documents, change of status, transfers, extension of stay for practical training, etc. The International Student Advisor moderates the activities of the International Students Organization. The Advisor is located in UC 104.

#### Counseling Center and Academic Services

The undergraduate and graduate years involve significant personal developments which are both exciting and taxing intellectually, socially and emotionally. Consistent with the University's philosophy of providing holistic and personal attention to its students, the University of San Diego Counseling Center has professional psychologists and counselors who provide a variety of services to facilitate students' psychological needs. Many students experience difficulties as they adjust to University study; stress, loneliness, anxiety, depression, relationship or family issues are common. Individual, group, relationship and family counseling are available. Each currently enrolled student is entitled to 12 sessions of personal/social counseling per calendar year at no cost. All services are confidential within legal and ethical guidelines. Referrals to other professionals (psychiatrists, physicians, attorneys, drug/alcohol abuse specialists, etc.) are made as appropriate.

Workshops and seminars on areas of special interest are provided throughout the year. The Center also provides psychological self-help materials, a lending library, an eating disorders support group and a support group for adult children of dysfunctional families. Academic counseling is available to students wishing assistance with academic skills such as test taking, time management, thesis and dissertation support and decision-making and stress management, among others. Academic advising is available to students who have completed their first year of preceptor-

ial advisement but who have not yet declared a major.

Academic advising is also available to undeclared transfer students and to students on academic probation status (supplemental to their major advisor).

The Counseling Center is located in S 303. The hours of operation are Monday through Friday, 8:30 a.m. to 5:00 p.m.; the telephone number is 260-4655.

#### Career Services

Career planning is an active process for students throughout their years at the University and beyond. Career Services emphasizes a personal approach to career planning which relates interests, values, skills and education to career decisions and choice of major. Students receive employment assistance through individual appointments and workshops on résumé/vita preparation, interviewing skills, and job search strategies. Resources for students include computerized career assessment programs, career days, and an active Alumni/ae Career Network. The Career Library contains information on current job openings, internships, and career options. The office also coordinates on-campus recruiting interviews each semester and maintains graduate school reference files for students. Career Services (located in the Hughes Center) is open Monday - Friday from 8:30 a.m. - 5:00 p.m. with extended hours on Wednesday from 8:30 a.m. - 6:00 p.m. The telephone number is 260-4654.

#### Educational Opportunity Program (EOP)

The purpose of the Educational Opportunity Program (EOP) is to enroll in the University of San Diego capable persons from ethnic minority groups and low income backgrounds, assist them in financing their education if need exists, and make available academic support to help insure their success as university students.

The EOP is designed for those students who have the potential to perform satisfactorily at the university level but who, without the help of EOP, would be unable to realize that potential due to economic, cultural, or educational background. Students from Native American, Hispanic, African American, Asian American, and low-income backgrounds are particularly encouraged to apply.

Although EOP does not provide direct financial aid, the EOP staff is available to help admitted EOP students with procedures involved in applying for financial assistance. EOP students must apply directly to the Office of Financial Aid for available types of aid, including special grants, government grants, student loans, and part-time

employment. EOP students, like all other students, will then be considered for financial assistance based on need as determined by the University. **Students are strongly encouraged to submit the necessary paperwork as early as possible.**

Because EOP students are expected to compete on an equal basis with other students, it is particularly important that the program provide the means to insure their academic success. All EOP students, therefore, are given free tutorial assistance in general education courses. (This tutorial help, although mandatory for EOP students, is available to other students as well.) The Director, as well as a Preceptor and a Major Advisor, provides individual advising to EOP students. The EOP Director and staff take a personal interest in the progress of each EOP student from the time of application through graduation.

Interested and motivated students should contact the

University of San Diego  
Educational Opportunity Program  
5998 Alcalá Park  
San Diego, California 92110-2492  
(619) 260-4330

## ADMISSION

Admission to the University of San Diego is based upon evidence of the applicant's fitness to succeed in and profit by the college work here. Consideration is given to past performance, test scores, recommendations, a personal essay, and any other information the candidate may choose to provide. While not required, a personal visit to the campus is strongly recommended.

### ADMISSION TO FRESHMAN STANDING

Admission to freshman standing is based on the following factors:

1. Performance in secondary school. Applicants are expected to present a well-balanced secondary school program of at least four academic subjects each year (including college preparatory courses in English, foreign language, mathematics, laboratory science, history and social science). Both the content of the program and the quality of the performance will be considered;

2. Scores on the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board. Students should plan to take this test in their junior year, early in their senior year, or at least nine months prior to their planned enrollment. Test scores from the American College



Testing Program (which administers the ACT) are acceptable from out-of-state students only;

3. Academic recommendation from high school faculty; and

4. Personal essay.

Additional, specific prior preparation is strongly recommended for students planning to pursue a major in engineering. See the Electrical Engineering section for information.

### Early Admission

Some students of superior academic achievement and promise require less than the usual four years of high school to prepare for college. A superior student who has completed the required 16 academic subjects in less than eight semesters may apply for admission. The high school diploma remains a requirement for early admission.

### Advanced Placement (AP) and Credit for Advanced Work

Advanced placement college credit may be granted for advanced placement courses taken in secondary schools, when such courses are completed with scores of 3, 4, or 5 on appropriate Advanced Placement Tests given by the College Entrance Examination Board. (A score of 4 or 5 must be earned on the English Literature test.)

Students who have been given the opportunity by their secondary schools to take college courses prior to high school graduation will be given college credit when such courses were taken after the junior year and not required to meet high school graduation requirements. The purpose of advanced placement and credit is to recognize advanced work of quality already accomplished by certain students, to preclude duplication of courses, and to provide increased opportunity for the exceptional student to take elective work in his or her undergraduate program.

### College-Level Examination Program (CLEP)

College credit may be granted, within certain limitations, for the General and Subject examinations offered through the College-Level Examination Program (CLEP) of the College Entrance Examination Board when satisfactory scores have been earned. Any units earned in this way require payment of half of the tuition costs for that number of units.

### International Baccalaureate (IB)

College credit will be awarded to students who have successfully passed the individual International Baccalaureate Higher level examinations with scores of 5 or higher. Satisfaction of specific University requirements by International

Baccalaureate credit will be decided in consultation with individual departments.

Additional information about each of the above may be obtained from the Office of the Dean of Arts and Sciences (F 114).

### ADMISSION TO ADVANCED STANDING

The University normally accepts transfer students from other colleges and universities who were admissible to the University as freshmen and present a strong record in their previous college work.

Candidates who were not eligible for admission to the University as freshmen will be considered if they present a balanced academic program of at least twenty-four semester units of transferable academic work with a strong record.

Candidates seeking readmission to the University must meet the same admissions requirements as transfer students.

Candidates for advanced standing, in addition to the application procedures listed, must present official transcripts of all college work attempted and a letter of recommendation from the previous college.

**Transfer credit is officially evaluated by the Office of the Dean of Arts and Sciences following the student's acceptance and submission of commitment deposit.** No official evaluation can be made before that time.

### APPLICATION PROCEDURES

1. A candidate should procure the Application for Admission from the Office of Admissions and return the completed form with the fee of \$45.00 (non refundable).
2. A candidate should ask the Registrar of the high school (and college, if any) to send the official transcripts of credits to the University at the end of the sixth or seventh semester of high school. Definitive acceptance depends on the report of the final examinations of the secondary school and the statement of graduation from high school.
3. Reports of the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board should be forwarded to the University **at the request of the student.** Out-of-state students may forward American College Test (ACT) results.
4. The applicant should arrange to have sent directly to the University the recommendations as indicated on the Application for Admission form.
5. When the above data are filed, the Committee on Admissions will inform the student of the

action taken on the application, according to the calendar published in the *Undergraduate Perspective*.

6. Early action consideration is available to academically superior freshman candidates completing the application before December 1st. When appropriate, candidates not selected for early action will be referred to the regular admissions process.
7. Admitted candidates are required to send a commitment deposit before the deadline noted in their letter of acceptance. Commuting students should send a \$100.00 deposit and resident students should send a \$250.00 deposit and room reservation fee.
8. The University observes the announced Candidate's Reply Date set by the College Entrance Examination Board. This means that candidates who have been informed of their acceptance in the University are not required to make any non-refundable deposit prior to May 1.
9. Admitted students will receive information concerning orientation in mid-summer.
10. The University of San Diego is a member of the National Association of College Admission Counselors and subscribes to the Statement of Fair Practices of that organization.

### INFORMATION FOR INTERNATIONAL STUDENTS

The University of San Diego welcomes international students who can demonstrate their ability to undertake college work successfully in the United States.

Applicants for admission from other countries must give evidence of eligibility for college entrance by furnishing official records covering all secondary and collegiate work and academic and personal recommendations. All non-English records must be translated into English and certified as accurate by the school, a consulate official, or an official translator. **Evaluation of international transcripts often requires several weeks. Students presenting such transcripts are therefore urged to have them forwarded as early as possible.**

Students from non-English-speaking countries are required to take the Test of English as a Foreign Language (TOEFL) administered by the Educational Testing Service, Princeton, New Jersey 08540. The Scholastic Aptitude Test (SAT) or the American College Test (ACT) is required of all international freshman applicants. The SAT is administered throughout the year around the world. To obtain SAT registration materials, write College Board ATP, Box 592,



## 18 ■ EXPENSES

Princeton, New Jersey 08541. It is the responsibility of the international student to see that all credentials for admission to the Fall semester are received by February 7. The last TOEFL test dates to meet the deadlines are January for the Fall semester and October for the Spring semester.

All international students accepted at the University must provide for their financial support from non-university sources. They must submit adequate proof of financial responsibility for all obligations for the full period of time for which they are making application. Accepted resident students should send a tuition deposit and room reservation fee of \$250.00 and commuting students should send a tuition deposit of \$100.00 when accepted. These non-refundable deposits are credited to the student's account. **No evaluation of a student's academic status or registration information can be sent until receipt of the deposit.**

USD is authorized under federal law to enroll non-immigrant alien students. The applicant must be accepted as a full-time student working toward a degree before he or she is eligible for an Immigration Form I-20A. The I-20A will be sent to the student upon receipt of an affidavit of support indicating the amount and source(s) of finances, and a commitment deposit.

### VETERANS CERTIFICATE OF ELIGIBILITY

A Certificate of Eligibility is required for each entering veteran and/or surviving dependent of a veteran. Any person entitled to enroll under any Public Law must present a Certificate of Eligibility from the proper veterans authority in order that the University can certify to the Veterans Administration that he or she has entered into training. For further information, eligible persons should contact their local Veterans Administration Office or the Registrar's Office at USD.

### UNIVERSITY OF SAN DIEGO 1994-1995 EXPENSES FOR UNDERGRADUATES

Application Fee\*, payable when application is made for admission. It must be paid by all students .....\$45.00

#### Tuition, 1994-1995:

1-13 units, per unit .....	465.00
14-17 units, per semester .....	6800.00
Over 17 units, per additional unit .....	465.00

Tuition for 1995-1996 has not been determined. It is expected to increase.

#### Associated Students Fee

12 units or more, per semester .....	50.00
7-11.5 units, per semester .....	19.00
3-6.5 units, per semester** .....	6.00

#### Deposit, 1994-1995

Advance tuition deposit for new commuter students (non-refundable) .....	100.00
Advance tuition and room deposit for new resident students (non-refundable) .....	250.00
Advance room deposit for returning resident students (non-refundable) .....	150.00
Damage/cleaning deposit for resident students (due at registration) .....	100.00

#### Room and Board, 1994-1995

There are several different plans available. Room and board may vary between \$2970 and \$3805 per semester depending upon accommodations and/or meal plan.

Residents must be currently enrolled full-time students at the University of San Diego (and making normal progress toward completion of a degree) during the period of occupancy. All unmarried freshman students under 21 years of age not commuting from the home of their parent(s) or legal guardian must live in University housing. Exceptions to these policies will be considered by the Housing Office, but must be requested by letter and approved prior to the start of the semester (that is, prior to checking into the hall or to making permanent plans to live off-campus).

Room and Board for 1995-1996 has not been determined. It is expected to increase.

Auditing is one-half the regular per unit tuition charge.

#### Special Fees, 1994-1995

Parking Fee .....	to be determined
Late Registration Fee .....	60.00
Change of Program Fee .....	5.00
Credential Program, Field experience per unit .....	10.00

Credit by examination: one-half the regular per unit tuition charge .....	
Special examination .....	5.00-25.00
Music, private instruction, per semester (payable at registration) .....	300.00
Instruments not provided (except keyboard) .....	
Returned check charge .....	10.00
Transcripts, first one free, each thereafter .....	1.00

**Note: Transcripts and diploma will not be released to students who have an outstanding balance owing.**

#### Tuition Refund Policy:

1) FEES and DEPOSITS are non refundable.  
2) TUITION is fully or partially refundable only when a student withdraws officially. An Official Withdrawal Form must be presented by the student to the Registrar's Office where it will be date-stamped. The following schedule applies:

100% refund for withdrawal during the first week of classes of the regular academic semester;	
90% refund for withdrawal during the second week of classes;	
80% refund for withdrawal during the third week of classes;	
70% refund for withdrawal during the fourth week of classes;	
60% refund for withdrawal during the fifth week of classes;	
60% refund during the sixth week of classes	
50% refund for withdrawal during the seventh week of classes;	
40% refund for withdrawal during the eighth week of classes; and	
<b>NO REFUND</b> of tuition will be made for withdrawal after the end of the eighth week of classes.	

The date of withdrawal for refund purposes is considered the date the Withdrawal Form is received and stamped by the Registrar. Any student who feels that his or her individual case warrants an exception to this policy should consult the dean of the appropriate school.

**Note:** The tuition refund policy for Intersession and Summer Sessions is published in the appropriate bulletins. For calendrical reasons, it differs from the above. Please call the Graduate and Continuing Education Office (260-4800; located in F 108) for details.

\* Application fee may be waived where there is evidence of exceptional financial need.

\*\* Optional for students enrolling for fewer than three units.



**Room and Board Refund Policy:** The University will adhere to the following schedule for the refunding of housing and dining service fees for residents officially withdrawing from the University during either the Fall or Spring academic semester. The effective date for any Housing and Dining Service refund will be the date that the resident officially checks out of his or her room, returns the room key, and surrenders his or her meal plan, whichever is later.

Withdrawal during:

First week of the contract .....	Prorated on daily basis
Second week of the contract .....	90%
Third week of the contract .....	80%
Fourth week of the contract .....	80%
Fifth week of the contract .....	70%
Sixth week of the contract .....	60%
Seventh week of the contract .....	60%
Eighth week of the contract .....	50%
Ninth week of the contract .....	40%
After ninth week .....	NO REFUND

At the end of the academic year, the damage/cleaning deposit may be refunded in full if no damage/cleaning has been charged against it, or in part according to the amount of damage/cleaning charged; it will be carried over to the next year if the student will return to the residence hall the following September.

A student who feels that his or her individual case warrants an exception to this policy should consult the Director of Housing.

## REGISTRATION/FEE PAYMENT POLICY

Class registration is not officially completed until all tuition, room and board charges, and fees are paid, except for those students who have pre-arranged to adopt the University's monthly installment plan described below. Classes reserved may be canceled by the University if the student does not complete the fee payment by the assigned fee payment date in September and January for the respective Fall and Spring semesters. (See the Academic Calendar in the first few pages of this *Bulletin* for specific dates.) There is a \$60.00 late registration fee charged to all students that do not complete fee payment by the last day of registration. Accounts paid by a check which is returned by the bank uncollected are not considered paid. **Credit cards are not accepted for tuition, room and board or fee payments.**

**Note:** To students on the Monthly Installment Plan: Installment payments must be

current throughout the contract life; if not current, the University reserves the right to cancel class reservations and/or registration and room and board arrangements. If scheduled installment payments are not current by the assigned registration and fee payment days, the \$60.00 late registration fee must be paid to complete the registration.

## REGISTRATION/FEE PAYMENT PROCEDURE

To complete the official registration process the following steps are required by the student.

1. Complete the Academic Advising form supplied by the Advisor and submit it to the Registrar's Office. (Dates, times, and location of class reservation are announced in advance in the *Schedule of Classes*);

2. Pay the required tuition and fees at the Student Accounts Office, except those who pre-arranged to adopt the University's monthly installment plan. Students may choose to complete the fee payment portion of registration conveniently by mailing their full payment to the University's Student Accounts Office prior to the deadline for mail-in fee payment identified on the statement of charges; and

3. If the student has any estimated financial aid, a Stafford Student Loan, Perkins or a Trust loan on his or her offer of financial assistance and these awards are needed to assist the student in completing fee payment, the student must make arrangements at the Student Accounts Office on the registration/fee payment days. Failure to do so will subject the student to a \$60.00 late registration fee.

**Note:** Please read the *Intercession and Summer Session* bulletins for specific information regarding the registration and fee payment procedure for those academic periods.

## PAYMENT PLANS PREPAYMENT PLANS

The Prepayment Plan, which currently allows a discount of 6% per annum (1/2% per month) for payment in advance of all actual tuition, room and board, and fees, operates according to the following guidelines.

- The University reserves the right to change the discount rate.
- The student will prepay for the entire academic year, or for Fall or Spring semester separately. Only one academic year may be paid in advance.
- July 1 is the last day to prepay and receive a discount for the Fall semester; December 1 for

the Spring semester.

- Amounts paid are refundable in full prior to first day of class for the Fall and Spring semesters, respectively. Subsequent to those dates, amounts due the University are governed by the University's published refund policy (shown above).
- If the student opting for the prepayment plan is unsure of the number of units to be taken, a semester average of 14-17 units should be used to compute tuition costs. Housing estimates should be based on the cost of double occupancy in the San Dimas residence. Payment adjustments for deviations from average amounts will be made within a reasonable time after actual charges are determined.

## MONTHLY INSTALLMENT PLAN

The Monthly Installment Plan allows for payment in five or ten installments covering estimated expenses for the Fall and/or Spring semester. Both the five and ten payment installment plans have a \$50 administrative charge which is payable when submitting the application/worksheet to the Student Accounts Office.

The Monthly Installment Plan operates according to the following guidelines.

- The student account balance with the University must not be delinquent and prior semester charges must have been paid on a current basis to be considered for the Installment Contract.
- An application/worksheet for the ten payment or five payment plan for the Fall semester must be received by the Student Accounts Office no later than June 1 to be eligible. The deadline for applications for the Spring semester five payment plan is November 1. A plan is available for those new students whose commitments to the University occur after the respective deadlines.
- Payments begin on July 1 for the full year/Fall semester plans and on December 1 for the Spring semester plan.
- Formal application for the five or ten installment plan must be made for each new academic year or semester.
- Adjustments are made to remaining contract payments as actual versus estimated charges and/or credits occur. Charges for various fines, citations, or other non-contractual charges are payable immediately and are not deferred over any remaining installment period.
- In the event of a contract default, USD may refuse the student or contract buyer a subsequent retail installment contract.
- All payments which are due on the first of the



month throughout the contract life must be current. If a student's installment plan is not kept current, the University reserves the right to cancel the student's class reservations and/or registration and room and board arrangements.

—Tuition, room and board payments received are refundable in accordance with the University's published refund policy.

—International students are not eligible for the monthly installment plan.

**Note:** If the student's actual charges exceed the estimated amounts prepaid or financed on the installment plan, the student is responsible for paying any such amounts.

Additional information on the payment plans is available from the Installment Contract clerks in the Student Accounts Office at (619) 260-4561. Worksheet/Application forms for the Installment Payment Plan may be obtained from the

Office of Student Accounts  
University of San Diego  
5998 Alcalá Park  
San Diego, CA 92110-2492

## FINANCIAL AID

The primary purpose of the financial aid program at the University of San Diego is to provide financial assistance to students who, without such aid, would be unable to attend the University. Financial assistance consists of scholarships, grants, loans and employment.

**Primary responsibility for financing an education rests upon the student and the student's family. Financial aid from the University is viewed as a supplement to funds which can be provided by the student, the student's family, and other sources.** Students requesting financial assistance may be expected to meet a portion of their educational expenses by accepting employment, or a loan, or both. Because financial aid funds are limited, need is the primary consideration in awarding aid. For certain scholarships, consideration is given to the applicant's academic achievement, character, and potential. Students requesting financial assistance from USD resources must also apply for scholarships and grants funded by their home states for which they may be eligible.

A financial aid package is designed to meet the financial need of each individual student. Each package may consist of funding from one or more programs and may range from \$200 to \$22,000 depending on established need and/or merit.

### Eligibility Requirements

1. The student must be officially accepted by the

Office of Admissions to pursue a degree or certificate, and maintain satisfactory academic progress as defined in the *Guide to Financial Aid Consumer Information at USD* which is available in the Office of Financial Aid in the Hughes Center.

2. The student must complete the appropriate application(s) (see Application Procedure below).
3. The student must be a United States citizen or eligible non-citizen.
4. The student must not be in default on any federal loan or owe a refund on any federal grant.
5. Financial aid applicants must be aware that certain financial aid programs are designed to assist students who complete their degree work in a normal four year period. Those who elect or require additional time may have to rely more heavily on self-help assistance in the form of work and loans.

### Application Procedure

1. Each student must complete the Free Application for Federal Student Aid (FAFSA) to be considered for federal and state aid. Additionally, for 1994-95 each student must complete the College Scholarship Service's (CSS) Financial Aid Form (FAF) to be considered for USD funds. These forms are available from high school and community college counselors, or upon request from the USD Office of Financial Aid. For 1995-96, students are advised to contact the Office of Financial Aid for application information. Regardless of where an applicant obtains a FAFSA and FAF he or she must request a *Guide to Applying for Financial Aid at USD* from the USD Office of Financial Aid.
2. When required by federal law, and upon request from the Office of Financial Aid, it will be necessary for the student to submit a copy of the parents'/student's latest federal income tax return and respond to other requests for information by the Office of Financial Aid.
3. These procedures should be followed by all students applying for any of the programs listed below except USD Payment Plans or Veteran's Assistance.
4. All forms should be received by the Office of Financial Aid before the priority deadline dates listed in the Academic Calendar (shown in the first few pages of this *Bulletin*) in order to receive priority in the awarding of available funds. Additionally, all follow-up information must be received by the USD Office of Financial Aid by the deadlines specified on the follow-up requests.
5. Students must follow these procedures each

year in reapplying for financial aid.

## SCHOLARSHIPS AND GRANTS

### Merit Awards

The University of San Diego has established the following scholarship programs based on merit for which all freshmen applicants are considered.

### Trustee Scholars

A limited number of Trustee Scholars are designated in the name of the University of San Diego Trustees. To be eligible for consideration, a freshman must have achieved at least a 3.8 grade point average in high school academic subjects and high SAT scores. Trustee Scholar awards may also be combined with other forms of University and outside financial aid for students with demonstrated need. These tuition credit awards may be for four years, contingent upon maintenance of a GPA of 3.45 or higher.

### Presidential Scholars

A limited number of Presidential Scholars are designated in the name of the President of the University of San Diego. To be eligible for consideration, a freshman must have achieved at least a 3.5 grade point average in high school academic subjects and strong SAT scores. Presidential Scholar awards may also be combined with other forms of University and outside financial aid for students with demonstrated need. These tuition credit awards may be for four years, contingent upon maintenance of a GPA of 3.25 or higher.

### Provost Scholars

A limited number of scholarships are designated in the name of the Provost of the University of San Diego. They are generally reserved for underrepresented students of high achievement who have financial need.

### Deans' Scholars

A limited number of scholarships are designated in the name of the Academic Deans. To be eligible for consideration, a freshman must have achieved at least a 3.4 grade point average in high school academic subjects and strong SAT scores. Deans' Scholar awards may also be combined with other forms of University and outside financial aid for students with demonstrated need. These tuition credit awards may be for four



years, contingent upon maintenance of a GPA of 3.25 or higher.

### Choral Scholars

Choral Scholars are selected on the basis of audition through the Department of Fine Arts. Scholarships typically cover over 50% of tuition and are renewable for up to four years as an undergraduate student, subject to maintenance of a 3.0 GPA, participation in a specific program curriculum, and sustained involvement in the Choral Scholars singing group. Students are encouraged to apply for need-based aid and, if eligible, will receive an offer which coordinates the Choral Scholarship with other assistance. Students should contact the Department of Fine Arts for further information.

### University of San Diego Scholarships

University of San Diego Scholarships are awarded to both new and continuing full time students. Freshmen awards are based on SAT/ACT scores, demonstrated scholastic achievement, and a need for financial assistance. Transfer and continuing student awards are based on demonstrated financial need and/or scholastic achievement.

Scholarships range from several hundred to several thousand dollars, and are renewable each year provided that the student's overall grade point average equals University competitive scholarship standards among USD's continuing students, and the student continues to demonstrate financial need.

**Note:** The GPA considered for scholarship renewal is the cumulative GPA provided to the Office of Financial Aid by the Registrar, calculated through the end of the previous January Intersession.

### University of San Diego Grants

These grants are sponsored by the University of San Diego and are offered to students with substantial documented need. The amounts vary. Students who have achieved above a 3.0 average are more likely to receive USD gift aid. Academic achievement is determined by the Office of Undergraduate Admissions.

### Bishop Maher Catholic Leadership Scholarships

This program, named for the late Bishop Leo T. Maher, provides annually renewable scholarships to Catholic undergraduate students who have demonstrated leadership in their parish, school, or community. The awards range from \$200 to approximately \$3000 per year, depending on the financial need, academic performance and



demonstrated leadership of the applicant.

In addition to the regular financial aid application forms described above, a special Bishop Maher Catholic Leadership Scholarship Application, a letter from the applicant and a letter of recommendation from the student's parish priest are required. The Maher Scholarships applications are available upon request from the Office of Financial Aid.

**Note:** The GPA considered for this scholarship renewal is the cumulative GPA provided to the Office of Financial Aid by the Registrar, calculated through the end of the previous January Intersession.

### Duchesne Scholarship Program

The University of San Diego, through the School of Education, offers a minority teacher scholarship program to assist ethnic students who would like to become teachers in elementary and secondary public and private schools. The University will award scholarships annually to incoming and continuing students. The amount of the scholarship varies depending on the financial need of the recipient. Freshman applicants must have a high school grade point average of at least 3.0 in academic subjects and acceptable SAT scores. Transfer students must have a minimum 2.8 grade point average based on at least 24 semester units. The Duchesne Scholarship appli-

cations are available upon request from the USD School of Education.

**Note:** The GPA considered for this scholarship renewal is the cumulative GPA provided to the Office of Financial Aid by the Registrar, calculated through the end of the previous January Intersession.

### Diversity Grants

These grants of up to \$2000 per year are offered to students with documented need whose experience, background, and culture will add diversity to the educational environment of the University of San Diego.

### Cal Grants

Each year the State of California awards a number of Cal Grants to assist with tuition and fees to students who are legal residents of the state of California and have demonstrated academic achievement and financial need. The grants can be renewed each year. In 1993-1994 the Cal Grants ranged from \$1410-\$6660.

The University of San Diego advises all students who are legal California residents to apply for this State grant. To be considered, the student must complete the FAFSA, as listed above, checking the appropriate box for information release to the State and provide other information as requested (for example, submit GPA Verification Form to the California Student Aid



Commission). The deadline for submitting all the necessary forms is announced each year by the California Student Aid Commission. See DEADLINES section below.

#### Federal Supplemental Educational Opportunity Grant

This federal program is designated for highly needy undergraduate students with priority given to recipients of Federal Pell Grants. Funding is based on federal allocations and varies each year.

#### Federal Pell Grant

The Federal Pell Grant Program assists undergraduate students with substantial financial need. The student will receive a Student Aid Report (SAR) from the federal processor which will indicate whether or not the student is eligible for the grant. The maximum 1993-1994 Federal Pell Grant was \$2300. The maximum amount is determined each year by the Federal Government.

#### Bureau of Indian Affairs Grants

The United States government, through the Bureau of Indian Affairs (BIA), provides annual grants to Native American students to encourage them to attend institutions of higher learning. Eligibility is dependent upon criteria established by the BIA. Recipients must be one-quarter or more Native American. Scholastic ability is considered and must be maintained.

Interested Native American students should contact the area or agency office having records of their tribal membership. That office will provide the necessary application forms. The amount of the award varies and is based on unmet financial need.

#### PRIVATE SCHOLARSHIPS AND GRANTS

The University of San Diego receives donations from private sources to provide various scholarships and grants to selected students in the name of the donor. In addition to meeting the USD Scholarship criteria, qualifications and requirements vary from program to program and are usually stipulated by the donor. Information regarding GPA criteria is available in the Office of Financial Aid in the Hughes Center.

Students are automatically considered for any of the scholarships listed below for which they are eligible when they apply for financial aid at USD (see Application Procedure above).

\*Special application required

#### ANNUAL SCHOLARSHIPS/AWARDS

Ahmanson Foundation Scholarship  
Arizona Alumnae of the Sacred Heart Scholarship  
Jeanne and Lawrence Atherton Scholarship  
Elizabeth Baker-Woods Scholarship  
Peter and Bruce Bidstrup Scholarship  
\*Class of 1990 Scholarship  
\*Class of 1991 Scholarship  
\*Class of 1992 Scholarship  
\*Class of 1993 Scholarship  
\*Class of 1994 Scholarship  
Chevron Merit Award  
Choconas Memorial Scholarship  
Copley Newspapers Scholarships  
Farmers Insurance Group Scholarship  
Paul Fitzpatrick Memorial Award  
Fleet Foundation Scholarships  
Fluor Independent Colleges Scholarship  
Ford Silsby Head Injury Education Fund  
\*General Dynamics/Convair Scholarship  
GTE California Independent Colleges Scholarships  
Catherine B. Ghio Scholarship  
Michael Ghio Memorial Scholarship  
Leon S. Heseman Scholarships  
Lone Mountain Scholarships  
Los Angeles Alumnae of the Sacred Heart Scholarship  
George H. Mayr Educational Foundation Scholarships  
Foundation of the Milken Families Scholarships  
Chester Pagni Outstanding Student Service Award  
Mary Anne Reynolds Scholarship  
St. Clare's College Scholarship  
San Diego Alumnae of the Sacred Heart Scholarship  
TELACU Scholarships  
Tenneco, Inc., Independent Colleges Scholarships  
Transamerica Occidental Life Insurance Company Scholarships  
Unocal Scholarship  
USD Auxiliary Scholarships

#### ENDOWED SCHOLARSHIPS

The following donors have endowed the University with funds which provide for scholarships to be awarded annually for the life of the University. The criteria vary and are established by the donor.

Appleby Diversity Scholarship  
Arcaro Scholarship  
Kathryn Grady Atwood Memorial Scholarship  
Dr. and Mrs. Manuel Barba Scholarship

Boyce Family Scholarship  
Kevin J. Briscoe Memorial Scholarship  
Dr. Gilbert Brown Endowed Scholarship  
Sandra and Robert Brue Scholarship Fund  
Martin and Florence Bursiek Student Aid Fund  
Mary Delafield Carter Scholarship  
Theia Cascio Scholarship  
James and Katherine Colachis Scholarship Fund  
John F. Connolly Scholarship  
Helene S. Corcoran Scholarship  
E.J. Culligan Memorial Endowed Scholarship  
French Endowed Scholarship  
Emil Ghio Scholarship Fund  
W.R. Grace Scholarship Fund  
Ernest W. and Jean E. Hahn Foundation Scholarships  
Hearst Foundation Scholarship  
Conrad N. Hilton Foundation Fund  
Holleman Endowed Scholarship  
Bob Hope Leadership Scholarship  
Ethel M. Horsch Nursing Scholarship  
Lawrence Family Endowed Scholarship  
Elsie Leith Memorial Scholarships  
\*Bishop Maher Scholarships  
\*Manchester Endowment  
Louise McNally Scholarship Foundation  
Music Endowment  
Neilsen Family Scholarship  
Oxford Endowed Scholarship  
Irene Sabelberg Palmer Scholarships  
Reardon/Goode Scholarship  
Leo Roon Leadership Scholarship  
\*Irving Salomon Political Science Scholarships  
Jeffrey A. Sardina Endowed Scholarship  
School of Education Scholarship Endowment  
Donald and Darlene Shiley Engineering Scholarship  
\*Forrest N. and Patricia K. Shumway Scholarship Fund  
Simonsen Endowed Scholarship  
\*Spain Family Scholarship  
\*Anne Swanke Memorial Scholarship  
USD Endowed Scholarships (which include the following)  
Dr. Lee Gerlach Honorary Scholarship  
Mr. Robert J. Keys Honorary Scholarship

#### OTHER MAJOR DONORS WHO CONTRIBUTE SCHOLARSHIPS TO USD STUDENTS

The following scholarships are made available to USD students from other major donors. Additional applications and/or interviews may be required for consideration. For more specific information contact the Office of Financial Aid.

Jack L. Adams Scholarship Funds  
Avery Dennison Corporation Scholarships



Avery Dennison Careers in Education Scholarships  
 Christian Ministry Scholarship  
 Colorado Alumnae of the Sacred Heart Scholarship  
 Kiwanis Foundation Scholarships  
 Ralph M. Parsons Memorial Scholarship  
 Ralph M. Parsons Scholars Program  
 Philip Morris New Minority Teachers Scholarship Program  
 Sr. M. Aimee Rossi Music Scholarships  
 San Diego County Citizens' Scholarship Foundation Awards  
 The UPS Scholars  
 Julia Wilkinson Scholarship

In addition to the above named University of San Diego Scholarships, additional sources of funds are available. Many companies offer scholarships to the sons and daughters of their employees. Fraternal organizations, such as the Elks or Rotary International, have assisted students in meeting the cost of education. Reference books listing a variety of scholarships, grants or loans available from private organizations are available at the Copley Library. The USD Office of Financial Aid provides a *Guide to Outside Resources of Financial Aid* upon request.

## LOANS

### The Federal Stafford Student Loan Program

There are two elements to the Federal Stafford Loan program. Eligibility for the Subsidized Federal Stafford Loan is based on documented need; eligibility for the Unsubsidized Federal Stafford Loan is not based on need.

Students must complete a Free Application for Federal Student Aid (FAFSA) to determine eligibility for a Federal Stafford Loan (subsidized or unsubsidized).

### The Federal PLUS Loan Program

A Federal PLUS Loan is available for parents to borrow a long-term, low-interest rate loan on behalf of their dependent children. Details regarding maximum loan amounts, current interest rates and repayment terms are described in the loan application materials available in the USD Office of Financial Aid. A FAFSA is not required for parents interested in the Federal PLUS Loan only.

## FEDERAL PERKINS LOAN PROGRAM

This federal loan program provides a limited number of long-term low-interest (5%) loans to

undergraduate and graduate students who have demonstrated substantial financial need. Details regarding maximum loan amounts, interest rates and repayment terms are described in information available at the Office of Financial Aid. Amounts offered depend on fund availability each year.

### Emergency Student Loan Program

Short-term emergency loans are available from the Office of Financial Aid for students during the Fall and Spring semesters. These small loans are to assist students with unforeseen emergencies.

### Gulf Oil Corporation Student Loan Fund Program

The Gulf Oil Corporation has provided the University of San Diego with funds to be used for low-interest loans. This program is designed to provide assistance for students who, because of personal, financial or related circumstances, are unable to secure adequate help through normal scholarship or loan programs. Repayment of the loan must be made within five years after graduation. Further details are available from the Office of Financial Aid.

### Marian Hubbard Loan Fund

Mrs. Marian Hubbard has established this low-interest loan fund to benefit students enrolled at the Philip Y. Hahn School of Nursing. Information is available at the School of Nursing.

### USD Trust Loan Program

The Weingart Foundation together with private donor matching funds has provided the University of San Diego funding for zero-interest, long-term loans to help students meet the cost of education at USD. A recipient must be a graduate of a California high school and have demonstrated substantial financial need. Amounts offered depend on fund availability each year.

## EMPLOYMENT (WORK STUDY)

### Federal Work-Study Program

Funds for this program are provided by the federal government and the University of San Diego. Employment, both on-and off-campus, is provided for students with documented need and is related, whenever possible, to the student's educational objectives. Employment averages 15 hours per academic week, with as much as 40 hours per week during vacation periods.

### Other On-Campus Student Employment

In addition to the Federal Work-Study Program, the University offers a limited number of job opportunities to students who do not otherwise qualify for federally subsidized programs. Over 500 students are employed part-time in areas such as Dining Services, Banquets and Catering, and the Athletic Department. Students should review the job postings at the Student Employment Center for campus job opportunities.

### Off-Campus Employment Service

The University of San Diego also assists students in finding off-campus employment not directly related to the institution. Weekend or part-time employment within the San Diego metropolitan area with business, industry, or commerce may be obtained. Job referrals and further details are posted on the Student Part-Time Job Board at the Student Employment Center.

## VETERANS ASSISTANCE

Information is available in the Office of the Registrar (F 113).

## VOCATIONAL REHABILITATION SERVICES

Students who have a physical, emotional, or other disability may be eligible for the services of the State Department of Rehabilitation. These services include vocational counseling and guidance, training (with payment of costs such as books, fees, tuition, etc.) and job placement. Under certain circumstances students may also qualify for help with medical needs, living expenses, and transportation.

Appointments may be made with a rehabilitation counselor by contacting the State Department of Rehabilitation at the San Diego District Office, 5095 Murphy Canyon Road, Suite 330, San Diego, California 92123.

## DEADLINES

Most financial aid packages consist of funds drawn from several sources—federal, state, and institutional. **Application forms and deadlines usually change each year.** Students should request current information from the USD Office of Financial Aid and apply for everything for which they may be eligible.

### Important Deadlines:

**FEBRUARY 20 — DATE BY WHICH FINANCIAL AID APPLICATIONS FOR FRESHMEN AND TRANSFER STUDENTS MUST BE POSTMARKED IN**



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ORDER TO RECEIVE PRIORITY CONSIDERATION FOR AVAILABLE FEDERAL AND USD FUNDS.

**MARCH 2** — DEADLINE TO APPLY FOR CALIFORNIA STATE GRANTS (CAL GRANTS).

**APRIL 1** — DATE BY WHICH FINANCIAL AID APPLICATIONS FOR CONTINUING STUDENTS MUST BE POSTMARKED IN ORDER TO RECEIVE PRIORITY CONSIDERATION FOR AVAILABLE FEDERAL AND USD FUNDS.

### STUDENT COSTS AND BUDGETS

Please refer to the *Guide to Applying for Financial Aid at USD* available from the USD Office of Financial Aid in the Hughes Center.

### MAJORS AND MINORS

**Majors:** Undergraduate major programs are offered in:

Accountancy  
Anthropology  
Art  
Biology  
Business Administration  
Business Economics  
Chemistry  
Communication Studies  
Computer Science  
Diversified Liberal Arts  
Economics  
Electrical Engineering  
English  
French  
History  
Hispanic Studies  
Interdisciplinary Humanities  
International Relations  
Marine Science  
Mathematics  
Music  
Nursing  
Ocean Studies  
Philosophy  
Physics  
Political Science  
Psychology  
Religious Studies  
Sociology  
Spanish

**Minors:** The University of San Diego offers undergraduate minor programs in many of the above majors except Diversified Liberal Arts and Electrical Engineering. Minors are also offered in:

Art History  
Environmental Studies  
Gender Studies  
German  
Information Science  
Italian  
Leadership  
Special Education  
Studio Arts  
Theatre Arts

**Coursework** preparing students for professional programs is available for the following fields:

Dentistry  
Foreign Service  
Law  
Medicine  
Optometry  
Pharmacy  
Psychology  
Public Administration  
Veterinary Medicine

**Credential Programs** are offered in:

Multiple Subjects  
Single Subject  
Pupil Personnel Services  
Special Education  
Bilingual Specialist  
Administrative Services  
School Nurse

**Graduate Programs:** The University of San Diego offers programs of study leading to the Master's degree in the following areas:

Business Administration  
Comparative Law (J.D. required)  
Counseling  
Curriculum and Instruction  
Dramatic Arts  
Educational Leadership  
English  
General Law (J.D. required)  
History  
International Business  
International Relations  
Marine Science  
Marriage, Family, and Child Counseling  
Nursing  
Pastoral Care and Counseling  
Practical Theology  
Special Education  
Taxation (J.D. required)  
Teaching

**Joint degrees** are available in the following areas: Nursing/Master in Business Administration, Law (J.D.)/Master in Business Administration, Law (J.D.)/International Relations, Law (J.D.)/International Business.

The University also offers programs of study leading to the doctorate in Education and in Nursing. Individuals interested in obtaining additional information about graduate programs should consult the *School of Law Bulletin* or the *Graduate Bulletin*.

### HONORS PROGRAM

The Honors Program is designed to provide students of superior ability and accomplishment with the challenges and opportunities which will allow them to realize their potential more fully. The program emphasizes teaching excellence, small classes, and a core curriculum of innovative and exciting courses. Honors students have numerous opportunities for individual counseling and discussions with honors faculty.

In the freshman year, incoming honors students enroll in an honors preceptorial in the Fall semester, and an honors section of a lower division General Education course in the Spring. During their sophomore and junior years, honors students enroll in at least two upper division, team-taught, interdisciplinary courses. These courses, which change yearly, represent the Honors Core Curriculum. In the senior year, students in the Honors Program work on an independent research project in the Fall semester and, in their final semester, participate in a senior honors colloquium in which they share the results of their research with fellow honors students and the honors faculty.

Additional information about the Honors Program may be obtained by writing to:

Chair of the Honors Program Committee  
University of San Diego  
5998 Alcalá Park  
San Diego, California 92110-2492

### INTERSESSION

USD follows the 4-1-4 academic calendar. That is, there is a Fall semester of approximately four months and one in Spring of about the same length. In between is Intercession, which is three weeks in the month of January. No one is required to take a course during Intercession, but often courses of particular interest as well as General Education courses are offered during that time. One 3 or 4 unit course is the maximum allowed during Intercession; USD will not accept units taken concurrently at another college or university.

Obtain the current Intercession class schedule at the School of Graduate and Continuing Education (F 108) which administers





Intersession. Students must have their advisor's signed permission to register and must pay in full at the time of registration.

## SUMMER SESSIONS

Over a 12-week period during the summer, a number of sessions of varying length are scheduled. A total of 13 units may be taken over the 12-week period. These limits apply to any combination of courses taken concurrently at USD and another institution. Bulletins for Summer Sessions are available in F 108. Students must have their advisor's signed permission to register and they must pay in full at the time of registration.

## SUMMER PROGRAM IN GUADALAJARA, MEXICO

In cooperation with the Colegio Anahuac of Guadalajara, the University of San Diego conducts a six-week Summer Session in Guadalajara, Mexico. Any continuing student at USD is eligible to apply to this program.

Course offerings include Spanish language at all levels, Mexican and Spanish literature, art, sociology, psychology, anthropology, history, political science, and cross-cultural studies. Instruction is in both English and Spanish.

Students live with carefully selected Mexican host families. The summer's experience includes planned and supervised tours and excursions. Concerts and special lectures are part of the

cultural program. Folk dancing, guitar, and art classes are available as extra-curricular activity.

Four tuition grants for the program are awarded to worthy Mexican-American students under the auspices of the Summer Session in Guadalajara. For further information, write to:

USD in Guadalajara  
University of San Diego  
5998 Acalá Park  
San Diego, California 92110-2492

**Admission to the USD Summer Session in Guadalajara does not imply admission to the University of San Diego.**

## OTHER INTERNATIONAL STUDY PROGRAMS

USD undergraduates may apply for a variety of study-abroad programs. Several such programs, listed below, are directly affiliated with the University. Students who wish to study abroad on a USD-affiliated program or in a program not affiliated with USD must have a cumulative GPA of 2.75, or higher (Oxford and Freiburg require 3.0) prior to making application to the program of choice. Further information and application materials may be obtained from the Chair, Department of Foreign Languages and Literatures, or the appropriate Program Coordinator.

### Program in Florence, Italy

Qualified USD sophomores and juniors may study for either one or two semesters at the "Scuola Lorenzo de' Medici" in Florence, Italy. Students must have completed a minimum of two semesters of college-level study in Italian before the time of their participation. This USD affiliated program centers around intensive study in Italian language; a full course load can also include work in Italian literature, history, music and society, as well as in art history and studio art—the last two subjects offered at the Art Institute of Florence.

Only students who have been formally approved by USD for enrollment in the program may earn University of San Diego credit for their coursework.

### Programs in Aix-en-Provence, Toulon, and Avignon, France

By association with the Institute for American Universities (IAU), USD offers a choice of French study programs at three locations: Avignon, Aix-en-Provence and Toulon. All three cities are situated in southern France near the Riviera. The area abounds in historical, cultural, and artistic treasures, from Roman and medieval eras to more recent times, with works of Impressionist and early Modern painters represented in local museums. Paris is a mere four hours away with the TGV (Train à Grande Vitesse).

The Avignon and Toulon programs, where all courses are taught in French, demand a good background in the language, the equivalent of at least two years in college. The former, housed in a renovated 14th century chapel, meets more specifically the needs of French majors while the latter would appeal to Business majors and prospective law students. In Aix-en-Provence, where the program is located in a restored 17th century chapel, French is a prerequisite, but students with less background in French may attend. The curriculum includes two French courses per semester, with the balance to be chosen from among an array of offerings, both in French and English, that can meet USD General Education requirements in a variety of disciplines.

At all three sites, qualified students may attend the local French university. Recommended housing, arranged by IAU, is with French families, but independent housing is also available.

### Programs in Oxford, England

The University of San Diego maintains two Study Programs in Oxford, England, for which qualified students may enroll for either one semester or a full academic year. The Programs are



offered by special arrangement with St. Clare's Hall and with the Centre for Medieval and Renaissance Studies. Both are private institutions of higher education located in the city of Oxford. The Oxford Study Programs, open to all University of San Diego students, are primarily focused in the humanities and social sciences. Only students who have been formally approved by USD for enrollment in either program may earn University of San Diego credit for their coursework. Students intending to participate in either Program should have attained sophomore or junior standing and have an overall grade point average of 3.0.

#### Program in Toledo, Spain

The University of San Diego, in cooperation with the José Ortega y Gasset Foundation Research Center for Iberian and Latin American Studies, offers a one semester or full year program in Toledo, Spain. The campus is housed in the San Juan de la Penitencia Residence, a fully renovated 16th century convent located within walking distance from the center of Toledo. It is in the neighborhood of several major historic sites, including the home and museum of El Greco, and attracts students from Latin America as well as the U.S.

The academic program combines regular and research courses in Spanish language and literature, the humanities, and the social sciences, taught mainly in Spanish. Emphasis is also given to art history. Students intending to participate in the program should have attained sophomore or junior standing, and have completed Spanish 4 or its equivalent.

#### Program in Freiburg-im-Breisgau, Germany

USD, under the auspices of the Institute for European Studies (IES), offers two programs in Freiburg-im-Breisgau, Germany. Students must have completed a minimum of two semesters of college-level German and an introductory course in microeconomics before the time of their participation.

In the proximity of Brussels and Strasbourg (seat of the European Parliament), Freiburg is ideally located for the European Community (EC) Program. The curriculum focuses on the study of the economic, political and historical development of the Common Market. Instruction is in English and classes are held at the Institute. Students are housed in a dorm owned by the IES.

The German Program offers courses in modern German history, art history, political science, economics, and German language and literature. All instruction is in German. IES students are concurrently enrolled at the Albert-Ludwigs-

Universität (University of Freiburg). The latter offers courses in a vast array of fields in Arts and Sciences to qualified students. Two hours of tutorials supplement two hours of class work for selected University courses. Students are housed along with German students in university residence halls.

#### NAVY R.O.T.C.

In the Fall of 1981, the Secretary of the Navy announced the establishment of a joint Naval Reserve Officers Training Corps (NROTC) Program at the University of San Diego and San Diego State University. The University of San Diego is the host institution for the administration of the NROTC unit.

The primary purpose of the NROTC Program is to educate qualified young men and women to serve as commissioned officers in the Navy and the Marine Corps. Students participating in the program lead essentially the same campus life as other undergraduates. They pursue academic studies leading to a bachelor's degree, and may participate in any extracurricular activities that do not interfere with their NROTC requirements.

#### Programs

There are two types of NROTC programs: the Scholarship Program and the College Program. They differ primarily in benefits to the student. The Scholarship Program provides four years of university study largely at government expense, followed by a commission in the Navy or Marine Corps. The College Program leads to a commission in the Navy or Marine Corps, but without a NROTC tuition scholarship.

#### Scholarship Students

Four-year Scholarship Program students are selected on the basis of a highly competitive annual national selection. Selectees are enlisted in the Naval Reserve, appointed midshipmen, USNR, and provided tuition, fees, and textbooks for four years at government expense. In addition, they receive subsistence pay and Summer active duty pay which amounts to approximately \$1,700 each year. Navy Option students in the NROTC Scholarship Program are encouraged to pursue majors in engineering or in specific science fields (mathematics, chemistry, physics, or computer





science), but many other fields of study leading to a baccalaureate degree are permitted. Marine Corps Option students may normally enroll in any four-year course of study leading to a bachelor's degree. All scholarship students participate in three summer cruise and training programs.

Upon graduation, students receive commissions as Ensigns in the Navy or as Second Lieutenants in the Marine Corps after which they serve with the Navy or Marine Corps. The minimum period of active duty is four years, followed by four years inactive reserve status.

Two-year Scholarship Program students are selected through national competition. Applicants must be in their second year of college, and in good standing. Selectees for enrollment in this program attend the Naval Science Institute at Newport, Rhode Island, receiving instruction in naval science and drill, during July and August after their selection. Successful completion of the Naval Science Institute program qualifies students for enrollment in the advanced course of the NROTC program. They are provided tuition, fees, textbooks, and a subsistence allowance at government expense during their junior and senior years. Two-year scholarship students participate in a summer cruise between their junior and senior years.

Upon graduation, commission and service requirements are the same as for four-year scholarship students. Applications for the scholarship program may be obtained from any NROTC Unit or Navy-Marine Corps Recruiting Office.

### College Program Students

The College Program is designed for freshmen who desire to qualify for a commission in the Navy or Marine Corps while pursuing normal courses of study, and have not been accepted into the Scholarship Program. They have the status of civilians who have entered into contract with the Navy. All College Program students must be admitted to advanced standing by the Chief of Naval Education and Training at the end of their sophomore year in order to continue in the program. They enlist in a component of the Naval Reserve and receive subsistence pay of \$100 each month during the last two academic years. In addition, they receive active duty pay during the required summer cruise, which normally takes place between the junior and senior years. Upon graduation, students receive commissions as Ensigns in the Naval Reserve, or as Second Lieutenants in the Marine Corps Reserve, and are ordered to active duty for three years and inactive reserve status for five years.

College Program students may compete each year for scholarships granted by the Chief of Naval Education and Training. If selected, they will be appointed to scholarship status with the attendant benefits and pay.

Further information on the College Program may be obtained from any NROTC Unit.

### Academic Requirements for Scholarship Students

To receive a commission, the NROTC scholarship student must complete all requirements for a bachelor's degree in accordance with University rules and regulations, as well as completing certain courses specified by the Navy. General requirements fall into two categories:

#### 1. Naval Science requirements:

Freshman Year:

Introduction to Naval Science (NS 11)

Seapower and Maritime Affairs (NS 22)

Sophomore Year:

Naval Ships Systems I and II (NS 12 and NS 21)

Junior Year:

Navigation and Naval Operations I and II (NS 131 and NS 132)

Senior Year:

Leadership and Management I and II (NS 141 and NS 142)

Marine Option students substitute NS 133 and NS 143 for junior and senior year courses.

#### 2. Other courses required by U.S. Navy or USD:

Calculus (1 year)

Computer Science (1 semester)

Physics (calculus based) (1 year)

Technical electives: for students in non-technical majors one half of free elective courses must be in technical areas

English (1 year)

Modern Foreign Language (1 semester)

Political Science, Armed Conflict or equivalent (1 semester)

See Naval Science course descriptions under Naval Science Department near the end of this *Bulletin*.

### OTHER R.O.T.C. PROGRAMS

Through an agreement with the Air Force and Army ROTC and San Diego State University (SDSU), qualified students at the University of San Diego may participate in the Air Force or Army ROTC program at SDSU. Certain courses at San Diego State University are applied toward graduation requirements at the University of San Diego for these students.

### Air Force R.O.T.C.

Qualified students at the University of San Diego may participate in the Air Force Reserve Officer Training Corps (AFROTC) program at San Diego State University.

AFROTC offers a four or two-year Air Force Reserve Officer Training Corps program designed to develop officers who have broad understanding and high growth potential. For qualified students, two to four year scholarships are available in certain areas on a competitive basis. Scholarships may be applied toward tuition, various laboratory, textbook, and incidental fees plus a monthly non-taxable \$100 allowance during the academic year. Cadets participate in dialogues, problem solving, and other planning activities designed to develop leaders and managers. All coursework is done at San Diego State University with the exception of field trips and one Field Training encampment conducted at military bases.

Either a four- or six-week Field Training camp is required for all students during the summer between the sophomore and junior years. The four-week camp is for students who have completed all AFROTC lower division courses with a grade of "C" or better in each course and those with prior military service. Field Training emphasizes military orientation for the junior officer and aircraft and aircrew familiarization. Cadets receive physical training and participate in competitive sports. They observe selected Air Force units perform everyday operations, and they are trained in drill and ceremonies, preparation for inspections, and the use of weapons. Upon completion of the AFROTC program and all requirements for a bachelor's degree, cadets are commissioned second lieutenants in the Air Force and serve a minimum of four years of active duty.

USD students enroll in aerospace classes by signing up for these courses at the SDSU College of Extended Studies. There is no advance application needed for the freshman or sophomore (AS100/200) classes. However, an orientation program, held just prior to the start of the Fall semester, is recommended. It is designed to give new cadets a broad, realistic introduction to Air Force officer training and provide them with helpful, important information on meeting academic requirements.

The last two years of AFROTC (AS300/400) lead to the commission as a second lieutenant. Any student may apply during the sophomore year. The application process involves taking the Air Force Officer Qualifying Test (AFOQT), a physical examination, a physical fitness test, and a personal interview. Veterans who can be commissioned by age 35 are also eligible for the program.



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Further information about this program may be obtained from the AFROTC unit at San Diego State University (619) 594-5545.

### ARMY R.O.T.C.

The Army Reserve Officers' Training Corps offers a four-year and a two-year program designed to develop future officers in the areas of leadership, management, military history, and military skills.

The Army ROTC program consists of one course per semester along with one leadership laboratory period per week. The four-year program is divided into two parts: the Basic Course is taken in the freshman and sophomore years. No military commitment is incurred during this time. After completing the Basic Course, students who have demonstrated officer potential and have met physical and scholastic standards are eligible to enroll in the Advanced Course taken in the final two years of college and consisting of outlined military science and designated enrichment courses. Some students who have previous military service can receive constructive credit for the Basic Course. Upon graduation, students can enter the Army on active duty, Reserves, or the National Guard.

USD students enroll in the military science classes through the SDSU College of Extended Studies by coming to class and coordinating with the instructor. There is no advance application needed for the freshman or sophomore classes. Scholarship money is available.

Further information about this program may be obtained from the Army ROTC unit at San Diego State University (619) 594-4943/1236.

### THE BACHELOR'S DEGREE

The University is committed to a program designed to acquaint every student with the intellectual, cultural, and moral life of our civilization, while providing at the same time the opportunity to add to this knowledge special career-centered competencies. Though professors and students of many faiths are found on the campus, the basic goal of the University is a Christian liberal education which manifests itself in an intelligent, courageous, and creative devotion to God, to country, and to humanity. Normally the student is in residence through eight semesters, during which he or she is enrolled in approximately forty-four courses carrying minimum credit of 124 units.

Each student is responsible for his or her own academic program, and for satisfying requirements listed in this *Bulletin*.

### General Education

Forty to fifty per cent of the courses needed for the degree are in the area of General Education. These are in academic areas considered by the faculty to be indispensable to a liberal education, and therefore not to be left wholly to student election. The student must demonstrate competency in fundamental academic skills and must fulfill distribution requirements in the major areas of knowledge. Ordinarily, most of these General Education demands are completed by the end of the fourth semester.

### Majors

Twenty-five to thirty percent of the courses a student takes are designed to fulfill the major concentration requirements. The faculties of the various departments have prescribed these courses to insure that each student will do intensive work in one special area (the "major") so as to gain a useful command of its facts, interpretations, insights, and methods. Such concentration requirements are usually met in the junior and senior years, although certain preparatory courses will be taken earlier.

Students exceptionally well qualified may be permitted to fulfill the requirements of a second major concentration. Units for courses which could satisfy the requirements in both majors can be counted only once. Those intending to pursue graduate studies are advised to familiarize themselves with the requirements of the graduate school of their choice.

### Minors

The student may specialize to a lesser extent in another area (the "minor") ordinarily related to the area of primary interest. Students electing to major in Physics are required to fulfill a minor concentration in Mathematics and those in Communication Studies an enhanced minor. For other majors the minor is optional, although most departments urge their students to earn credit in such a concentration. Courses in the minor may not be counted toward the major but may be used to satisfy preparation for the major and General Education requirements.

### Electives

The remaining courses which students take are electives and may or may not be in areas related to the major subject. This liberty is provided so that students may choose courses either to satisfy their intellectual curiosity or to enlighten themselves in areas largely unfamiliar to them.

### Applicability of New Academic Requirements

Lower division requirements: Changes in lower division requirements, including prerequisites for a major, are not applicable to students already enrolled at the University of San Diego.

Upper division requirements: Changes in upper division requirements, including requirements for a major, are:

1. Applicable to freshmen, and to sophomores who have not yet enrolled in upper division courses in their major, provided that the new academic requirements do not affect prerequisites for the major; and
2. Not applicable to juniors and seniors.

A student who so chooses may elect to fulfill new rather than previous requirements, except that the student may not intermingle previous and new requirements.

When a department/school deletes one course and substitutes a new one, only those students who have not completed the deleted course will be required to take the replacement course.

If new requirements are favorable to the student, the University may make them immediately applicable, unless the student objects.

### Faculty Advisor Program

In order to assist students in maximizing their collegiate experience, an academic advising program has been developed which specifically suits the needs of the USD community. The program is consistent with the University's desire to foster a supportive, interactive environment which regards all students as individuals. In academic advising, each student works individually with an advisor both on procedures for completion of the degree and on development of the skills needed to make informed decisions. Therefore, advisors assist with information about academic policies, course selection, registration procedures, and graduation requirements as well as facilitating decision making about educational goals, alternatives, and career needs. This program initially involves faculty advisors for incoming freshmen in a small class called the preceptorial. The preceptorial class gives an opportunity for first semester freshmen to meet with their faculty advisor frequently to exchange thoughts on the student's intellectual and academic progress.

After the first year, all students who have declared their majors are assigned to a faculty member in that discipline. Advisors in the major can offer the depth of knowledge about their field needed to crystalize ideas about internships, independent study courses, application to graduate or professional schools, and career opportunities.



Transfer students often arrive at USD with intentions to major in a given area and are therefore assigned advisors in that major. For transfer students who have not yet made a decision with regard to major, advising will be done by the Academic Advisor at the Counseling Center. Prior to their first semester, they meet with their advisor to initiate the advising process and to register for their classes. All students need to declare their major on a Declaration of Major form which is available in the Registrar's office.

Undeclared students are assisted by a staff of professional academic advisors in the Counseling Center. The Counseling Center in Serra Hall is open daily and appointments can be made with the Center's academic counselors. Faculty advisors also refer students to the Counseling Center for career planning, interest assessment tests, and a variety of related workshops. All students should consider working with the trained advisors in the Counseling Center early in their undergraduate career.

All advisors are available to students on a regular basis for assistance; however, each student is ultimately responsible for initiating advising meetings and for his or her academic progress.

### Academic Units of the University

The University of San Diego is composed of the College of Arts and Sciences and the professional schools of Business Administration, Education, Nursing and Law. The Law School does not offer undergraduate degrees.

Degree programs offered at the bachelor's level are as follows:

#### The College of Arts and Sciences

- 1) Anthropology/Sociology, with majors and minors in Anthropology and in Sociology;
- 2) Biology, with major and minor;
- 3) Chemistry, with major and minor;
- 4) Communication Studies, with major and minor;
- 5) English, with major and minor;
- 6) Fine Arts, with majors and minors in Art and Music, and minors only in Art History and Theatre Arts;
- 7) Foreign Languages and Literatures, with majors and minors in French and Spanish, minors in German and Italian, and service courses in Chinese, Japanese, and Latin;
- 8) History, with major and minor;
- 9) Mathematics and Computer Science, with majors and minors;
- 10) Philosophy, with major and minor;
- 11) Engineering, with major (dual B.S./B.A.

- degree) in Electrical Engineering
- 12) Physics, with major and minor
- 13) Political Science, with majors and minors in International Relations and Political Science
- 14) Psychology, with major and minor; and
- 15) Theological and Religious Studies, with major and minor.

In addition, the College offers a number of interdisciplinary programs with majors and minors in Interdisciplinary Humanities, Marine Science, Ocean Studies, and Hispanic Studies; a minor in Gender Studies; a minor in Environmental Studies; and service courses in Paralegal Studies.

**The School of Business Administration** offers major concentrations in Accountancy, Business Administration, Business Economics and Economics.

**The School of Education** offers undergraduate and graduate programs in elementary and secondary education, special education, and counselor education, designed to prepare the students to meet the credential requirements of the State of California, and to meet the certification requirements in many other states. A minor in Leadership is also offered.

**The Philip Y. Hahn School of Nursing** offers a major in nursing for Registered Nurses only.

### GENERAL REQUIREMENTS FOR THE BACHELOR'S DEGREE

The University will confer the bachelor's degree upon candidates who satisfactorily complete the following:

- 1) 124 semester units of credit, with at least 48 units in upper division courses;
- 2) the General Education program;
- 3) a major concentration including at least 24 units of upper division work, and satisfying the requirements of the department/school in question;
- 4) a minor field, if one is required by the department/school in which one takes a major; a minor field includes 18 or more units, at least six of which are in upper division courses; and require a grade point average of 2.0 (C);
- 5) grade point average of 2.0 (C) in the total of college courses, and in courses at USD, and a grade of C in 24 units of upper division courses in fulfillment of the requirements for the major;
- 6) the residence requirement (completion of the final 30 semester units at the University of San Diego); and
- 7) settlement of all financial obligations to the University.

### REQUIREMENTS IN GENERAL EDUCATION

#### The Foundations Curriculum

The Foundations Curriculum is the University of San Diego's General Education program for all its undergraduate students. It is the heart of every student's academic work at USD. Its overall theme might be said to be one of parallel responsibilities—the responsibility of the University to offer its students the opportunity to gain a set of skills and participate in common experiences that will entitle them upon graduation to be accepted into the ranks of educated men and women, and the corresponding responsibility of each student to take full advantage of that opportunity.

We have chosen to call the program "The Foundations Curriculum." We believe the word "Foundations" is appropriate in at least three important senses:

1. Definition of a major goal of the curriculum, to provide a foundation in the basic knowledge any educated person will be expected to possess;
2. Development of a foundation for the study in depth that students will undertake when they choose a major field of interest for their upper division work; and
3. Provision of a foundation for learning as a living, growing process throughout one's entire lifetime.

The Foundations Curriculum is composed of three principal sections, each with its own curricular objectives. In turn, they are: the acquisition of Indispensable Competencies; the understanding of The Roots of Human Values; and the exploration of The Diversity of Human Experience. Here are the specifics of the three sections of the Foundations curriculum and their particular requirements.

**I. Indispensable Competencies** - Goal: To insure that students have the threshold competencies necessary to pursue successfully their further studies and their career goals.

#### A. Written Literacy

1. At the lower division level, students must demonstrate competency in written expression either by successfully completing a three unit English course titled "College Composition and Literature" or passing an examination in composition. The primary emphasis in the course will be on instruction and practice in composition. Those students demonstrating competency without taking the College Composition and Literature course are required to pass a literature course taught by the English Department to fulfill the literature requirement specified in Section III. A. below.



2. At the upper division level, students must demonstrate advanced proficiency in written English either by passing an upper division proficiency examination or by completing successfully an approved upper division writing course. These courses will be offered by various disciplines and can be identified by the suffix W in the course number.

**B. Mathematical Competency** - Students must demonstrate competency either by successfully completing a three or four unit course at or above the level of Mathematics 11, College Algebra, or by passing an examination in mathematics.

**C. Logic** - Students must demonstrate competency either by successfully completing Philosophy 1, or a more advanced logic course, or by passing an examination in logic.

**Note 1:** For those graduating in May, 1996 or later, the petition for graduation will be processed only if lower division Indispensable Competencies in General Education, Category I, have been fulfilled.

**Note 2:** Students who wish to attempt examinations to satisfy any lower division competency requirements must take those examinations within their first two semesters of full-time enrollment at USD.

**II. The Roots of Human Values** - Goal: To examine the various systems of thought and belief with emphasis on the Judeo-Christian tradition and on problems of defining and acting upon ethical concepts.

**A. Religious Studies** - Nine units including at least three units at the upper division level.

**B. Philosophy** - Six units (excluding Logic) including one upper division ethics or applied ethics course. Only three units of ethics may be used to satisfy the Philosophy requirement.

**III. The Diversity of Human Experience** - Goal: To foster a critical appreciation of the varied ways in which people gain knowledge and an understanding of the universe, of society, and of themselves, and to provide an informed acquaintance with forces and issues that have shaped the present and are shaping the future.

**A. Humanities and Fine Arts** - Nine units consisting of three units in History, three units in Literature in any language, and three units in Fine Arts (Art, Music, or Theatre).

**Note:** The College Composition and Literature course does not satisfy the literature requirement in the Humanities.

**B. Natural Sciences** - Six units including three units from the Physical Sciences and three units from the Life Sciences. In addition, at least

one of the courses must include a laboratory.

1. Physical Sciences
  - Chemistry
  - Environmental Studies 10
  - Marine Science 1
  - Physics
  - Engineering 2
2. Life Sciences
  - Biology
  - Environmental Studies 2
  - Marine Science 21

**C. Social Sciences** - Six units including three units in the behavioral sciences (Anthropology, Psychology, and Sociology) and three units in either Economics, Political Science, or Communication Studies.

**D. Foreign Language** - Third semester competency is required. Students may demonstrate competency either by successfully completing a third semester course in a foreign language or by passing an examination at that level. Candidates for the Bachelor of Science in Nursing degree need not fulfill the requirement in foreign language.

**Note:** Students are advised to fulfill their language requirement in successive semesters. For students with high school credit in a foreign language, see the Foreign Languages and Literatures section in this *Bulletin* for appropriate course placement.

#### General Education Requirements for International Students

International students meet the regular General Education requirements for a degree, as shown above, with the following possible modifications:

##### a) Foreign Language Requirement for International Students

The University of San Diego's foreign language requirement is a competency rather than a unit requirement. Therefore, students whose native language is a cultural language other than English, and whose high school education has been wholly or largely in the native language, have in many cases already fulfilled the equivalent of USD's foreign language requirement. Such students may present to the Office of the Dean of Arts and Sciences a request for an official evaluation of their language background to ascertain whether USD's requirement is already met. In most cases, a verifying examination will be required.

##### b) English Requirements for International Students

International students are required to meet the University of San Diego's English requirement. Students whose TOEFL scores or other

indicators evidence the need for additional preparation must enroll first in English 1 (Basic Composition, three units). These units count towards completion of the student's total units for the degree, but not toward fulfillment of USD's composition or distribution requirements.

#### Requirements for Major and Minor Concentrations

The professional schools and the departments of the College of Arts and Sciences may designate specific courses for majors or minors or both, and may prescribe certain lower division prerequisites.

#### ACADEMIC REGULATIONS

The completion of the registration process is interpreted to indicate that the student understands all the academic regulations of the University, accepts them, and pledges that he or she will abide by them.

##### Integrity of Scholarship

The University of San Diego is an academic institution, an instrument of learning. As such, the University is predicated on the principles of scholastic honesty. It is an academic community all of whose members are expected to abide by ethical standards both in their conduct and in their exercise of responsibility towards other members of the community.

Academic dishonesty is an affront to the integrity of scholarship at USD and a threat to the quality of learning. To maintain its credibility and uphold its reputation, the University has procedures to deal with academic dishonesty which are uniform and which should be understood by all. Violations of academic integrity include: a) unauthorized assistance on an examination; b) falsification or invention of data; c) unauthorized collaboration on an academic exercise; d) plagiarism; e) misappropriation of research materials; f) any unauthorized access of an instructor's files or computer account; or g) any other serious violation of academic integrity as established by the instructor. Acts of dishonesty can lead to penalties in a course such as: reduction of grade; withdrawal from the course; a requirement that all or part of a course be retaken; and a requirement that additional work be undertaken in connection with the course. Because of the seriousness of academic dishonesty, further penalties at the level of the University community may be applied; such penalties include probation, a letter of censure, suspension, or expulsion. Full copies of the policy on Academic Integrity are available at the offices of the Provost, Vice President for



Student Affairs, and Academic Deans, and in the Faculty/Administrator Handbook. Instructors also explain their expectations regarding academic integrity in their classes.

### Registration

Registration takes place when the student completes the required advising forms and pays the required fees. No credit will be given in courses for which the student is not officially registered. The time and place of registration is announced in advance by the Registrar. Late registrants are required to pay an extra fee of \$60.00. (For registration procedures during Summer Sessions and Intersession, please refer to appropriate bulletins for these sessions.)

### Declaring or Changing the Major

The entering student may declare a major at any time after the beginning of the first semester of attendance by completing the proper form, which is available at the Office of the Registrar. The same form is used to declare a minor, a certificate program, a second major, etc. As with the major, all these other programs must be declared formally. In addition, the same form is used officially to change advisors. Students must obtain the necessary signatures on the form and return it to the Office of the Registrar.

The selection of a major concentration has important and long-lasting consequences. Students who make their choice hastily and thoughtlessly run the risk either of finding themselves in an unsatisfying career or of making a subsequent costly adjustment to their program. Those who needlessly postpone their decision beyond a reasonable time also make a potentially costly error. Students should declare their major as early as possible so that their advisors can guide them in the selection of appropriate courses. Students choosing to major in Diversified Liberal Arts, the sciences, and in business administration should select those majors early in their academic career. Students majoring in engineering must consult an engineering advisor at the beginning of the freshman year.

The University's Office of Career Services is prepared to offer its services to students who face this difficult decision. Through personal interviews and extensive standardized testing, counselors in the Center help students to assess their academic assets, dominant interest patterns and potential for success.

Students contemplating a change of major concentration should also take advantage of the services of the Counseling Center (S 300). When a decision to change has been reached the student must complete the change of major form available

at the Office of the Registrar. Juniors and seniors who contemplate a change of major should be aware that a change is likely to necessitate taking additional courses in order to complete their requirements.

### Student Load

For a student to qualify as full time, 12 units minimum are required. However, the normal student load is 15-16 units. To exceed 17 units the authorization of the student's advisor and of the pertinent dean must be obtained in writing. Ordinarily no enrollment beyond 18 units will be approved unless the applicant has maintained a GPA of 3.0 cumulatively and in the immediate past semester. These restrictions on student load also apply to courses taken concurrently at another college or university for transfer to the University of San Diego.

The maximum student load in the Intersession is four units, and the maximum student load for the Summer Sessions is 13 units in a 12-week period. These maxima also apply to any combination of courses taken concurrently at the University of San Diego and another college or university.

### Dropping or Adding Courses

After registration, any student who wishes to add or drop a course must complete the necessary official forms for the Office of the Registrar. Unofficial withdrawal from a course results in a grade of F. Students who change their class schedule after the session/semester begins will pay a fee of \$5.00 for each change of program form processed.

Program changes involving the addition of courses are permitted with the written approval of the student's advisor within the first two weeks of a regular semester.

Dropping a course, without risk of academic penalty, will be allowed until the end of the tenth week of the semester. Withdrawal within that time limit will be recorded as W. After that date there is no possibility of withdrawal; the student will receive a grade for the course. A grade of W will not enter into the computation of the GPA.

### Withdrawal from the University

A student withdrawing from the University during a semester or for a future semester must file an official Notice of Withdrawal/Leave of Absence form with the Office of Student Affairs. Failure to do so before leaving the campus or, in the case of illness or other emergency, as soon as the decision not to continue has been made, will result in nonpassing grades in all courses, thereby jeopardizing eligibility to re-enter the University

of San Diego or acceptance in another institution.

A student whose registration at the University is interrupted for one or more semesters must make application for re-admission, unless a leave of absence has been granted in writing.

### Leave of Absence

A student who will not be registered at the University during a regular semester, but would like to return without applying for re-admission should request a leave of absence by filing the official Notice of Withdrawal/Leave of Absence form with the Office of Student Affairs. The request must state the reason for which the leave is requested and the semester in which the student will again register at the University. Requests for leaves of absence must be approved by the dean of the appropriate school or College. Leaves of absence are not normally granted to students in the probationary or disqualification status.

### Auditing

Auditing a course means attending a class without credit, without the obligation of regular attendance, and without the right to have tests and examinations scored or corrected.

Students register for audit in the same manner as for credit. Those who audit courses are not eligible for credit by examination in such courses nor are they eligible for financial aid, nor may auditors register for credit after the last official day to register in a class. Each course audited is entered on the student's permanent record. Auditing of laboratory courses is not permitted.

The fee for all who audit courses is one-half the standard tuition charge. Students wishing to register for credit have priority over those who desire to audit.

### Attendance

Regular and prompt attendance at class is deemed essential for the optimum educational progress of the student, and for the orderly conduct of academic life. There is no generally specified number of allowed absences. Each instructor will publish attendance regulations at the beginning of the course and will state what penalties will be imposed for excessive absences.

### Examinations

Final examinations are held in all courses at the end of each semester. Dates and schedules for the final examinations are not to be changed without the approval of the appropriate dean. Permission to take a make-up examination neces-



sitated by serious illness or other legitimate reason may be granted by the dean. A fee of \$5.00 is charged for each make-up examination.

In Fall and Spring semesters, examinations are limited during the week prior to final examinations. There may be no major examinations; minor quizzes are permitted as long as they are listed on syllabi at the beginning of a semester and do not count for more than 10% of the course grade. Laboratory practica, papers, oral reports, and make-up examinations are permitted. Students are responsible for class attendance and material presented during the week before final examinations.

Students who wish to fulfill specific competency requirements for graduation by examination may petition the Office of the Dean of the College of Arts and Sciences for permission to sit for such examinations. The times for these examinations are announced in the Academic Calendar (found in the first few pages of this *Bulletin*). Students should check with the dean for fees and locations for the examinations. No academic credit will be given for these examinations.

#### Credit by Examination

A number of the Subject Examinations of the College Level Examination Program (CLEP) have received approval by the University faculty, so that in certain specified subjects students may qualify for college credit by satisfactory performance in the CLEP tests. Inquiries may be made at the Counseling Center.

#### Grade Reports

At the end of each semester grade reports are mailed to students.

#### Pass/Fail Option

Students in good academic standing, that is, with grade point average of 2.0 at the University of San Diego and cumulatively, may elect to enroll for courses on the pass/fail plan. All students who wish to exercise the pass/fail option must have prior authorization from their advisor.

The following regulations apply:

- a) lower division students must have successfully completed at least 12 units at this University;
- b) if the course is part of a regular semester, the student must be enrolled in at least nine other units on a regular grading basis;
- c) students may take Intercession and Summer Session courses on a pass/fail basis provided that no more than one course is taken in any session or semester and that no more than two courses per calendar year are taken pass/fail. (Courses offered exclusively on a pass/fail basis

for all students are not counted in arriving at the limit.);

- d) major courses (and major prerequisites) are excluded;
- e) courses required for any state teaching credential are excluded;
- f) certain advanced or highly specialized courses may be excluded by departments acting in concert;
- g) research and reading courses, performance and independent study courses, and courses not lending themselves to specific grading practices may, by faculty election, be included;
- h) all courses designated as "activity" courses may be pass/fail (at election of faculty, not students);
- i) there will be no change from pass/fail to grade or vice versa after the regular add period;
- j) the course, quiz, paper, examination, and attendance requirements for pass/fail students will be the same as for students receiving a letter grade;
- k) Pass requires "C-" grade or better;
- l) Pass does not affect grade point average; "Fail" does affect grade point average;
- m) a course taken on a pass/fail basis may only be repeated as a pass/fail course;
- n) a course in which D or F is received may not be repeated on pass/fail basis, but may be repeated for a grade;
- o) \*a maximum of 30 pass/fail units is applicable to the fulfillment of degree requirements;
- p) a student wishing to major in a field in which he or she previously earned pass/fail credit may, with departmental permission, select another course to fulfill the requirement; and
- q) for first honors or second honors consideration, 12 semester units must be earned in which traditional grades are issued.

\*In the Electrical Engineering (EE) major, pass/fail is not permitted in any required (by title) course; pass/fail enrollment in certain general education elective courses requires prior approval of the EE program director, and may be utilized for a maximum of 21 units of required elective General Education course units.

#### Grading System

At the end of each semester, a student's work in each course is recorded with one of the following grades: A, superior; B, very good; C, average; D, inferior; F, failure; P, credit awarded, but units do not enter into computation of grade point average; W, withdrawal; Inc., incomplete.

Professors may not change final grades unless there is a computational error.

Grade points are assigned to the above

grades as follows: A—4 points per unit; B—3 points per unit; C—2 points per unit; D—1 point per unit; F—0 points per unit. The plus or minus raises or lowers the class grade point by one point in 3- and 4-unit classes, by two points in 5-unit classes. (A plus will not affect the grade points for A grades.)

The grade of Inc. (Incomplete) may be recorded to indicate that the requirements of a course have been substantially completed, but for a legitimate reason, a small fraction of the work remains to be completed and the record of the student in the course justifies the expectation that he or she will obtain a passing grade upon completion. The instructor who gives an Incomplete should know the reason for non-completion of the work in order to ascertain the legitimacy of that reason. **The responsibility is on the student to come forth with the request for an Incomplete prior to the posting of final grades.** The Incomplete grade is not counted in the computation of the grade point average for the semester for which the Incomplete grade was authorized.

**A student who receives a grade of Incomplete must complete all the missing work by the end of the tenth week of the next regular semester; otherwise, the Incomplete grade remains on the record permanently, with the same effect on the grade point average as if it were an F.**

The instructor assigning a grade of Incomplete will file a signed form with the dean of the appropriate school or College, indicating the reason for the Incomplete. The form is filed when the Incomplete is posted.

Only courses for which grades D or F were received may be repeated for credit. Only one repetition is permitted unless authorized in writing by the dean. On course repetitions, the units are applied toward a degree only once, but the grade assigned at each enrollment shall be permanently recorded. A course in which grades D or F were assigned may not be repeated on a pass/fail basis.

In computing the grade point average of an undergraduate student who repeats courses in which a D or F was received, only the most recently earned grades and grade points shall be used for the first ten units repeated. In the case of further repetitions, the grade point average shall be based on all grades assigned and total units attempted. **The student should notify the Registrar when a course is repeated so that adjustment of the cumulative grade point average, if necessary, may be done promptly.**

The grade point average (GPA) is computed by dividing the total grade points by the total units attempted.



### Duplication of Credit

Each of the academic courses counted toward the 124 units required for graduation must represent an increment in the student's knowledge. Consequently, courses which duplicate previous work, either in high school (for example, foreign language) or in college, cannot be counted toward graduation, nor can elementary courses which are prerequisite to advanced courses if they are taken concurrently with or after the more advanced work.

### Experiential Education Credit

A maximum of six units of combined practicum, field experience and/or internship taken within the College of Arts and Sciences can be applied to the 124 unit degree requirement, 48 unit upper division requirement, and/or upper division requirements in the student's major. Only students eligible for upper division credit (second semester sophomore standing) will be allowed to register in these courses. **The University neither gives nor accepts transfer credit for experiential learning.** Other restrictions (that is, junior and/or senior standing) are at the discretion of the department.

### Scholastic Probation and Disqualification

A student will be placed on scholastic probation if:

1. The semester GPA falls below a C average (GPA 2.0) for course work in a given semester; or
2. The cumulative GPA falls below 2.0 for all college work attempted and for all work attempted at this University.

In either case, the student will be placed on probation for the next semester (or portion thereof if the resolution of Incomplete grades leads to a semester GPA of less than 2.0). Permanent Incomplete grades count as units attempted, with no grade points, for purposes of computing the semester and the cumulative GPA.

The probationary status of a student can be ended only at the close of the probationary semester when the following conditions are met:

1. A C average (GPA 2.0) for all college work attempted (cumulative GPA), for all work attempted at USD and for all coursework attempted during the semester of probation; and
2. There are no grades of Incomplete for the probationary semester.

If the student does not end probationary status at the conclusion of the probationary semester, he or she will be scholastically disqualified.

An extension of scholastic probation for one semester only may be considered if a student appeals in writing to the dean of his or her school or College within ten days of the postmark date on the notice of disqualification; the appeal should set forth the reasons which would justify an extension and the specific plans for raising the cumulative GPA.

### Honors

At the end of each semester, each dean publishes the names of full-time (12 units or more) honor students. Those with a GPA of 3.65 or higher receive First Honors; those with 3.33 to 3.64 receive Second Honors. All honor students receive a personal commendation letter from the appropriate dean.

Students of outstanding academic merit receive special honors at graduation. Eligibility for these special honors is based upon GPA, covering all collegiate work attempted: a) for the *Summa Cum Laude*, 3.85 or higher; b) for the *Magna Cum Laude*, 3.65 to 3.84; and c) for the *Cum Laude*, 3.46 to 3.64. The senior with the highest academic average in all college courses, provided that at least half of the degree work has been at the University of San Diego, will give the valedictory address at graduation. Also presented at graduation are the Alcalá Leadership Awards to two outstanding seniors.

Upon graduation, honor students with the scholastic and leadership qualifications may be awarded membership in KAPPA GAMMA PI, the National Honor Society for Catholic College Women and Men. No more than ten per cent of the seniors may be awarded this honor.

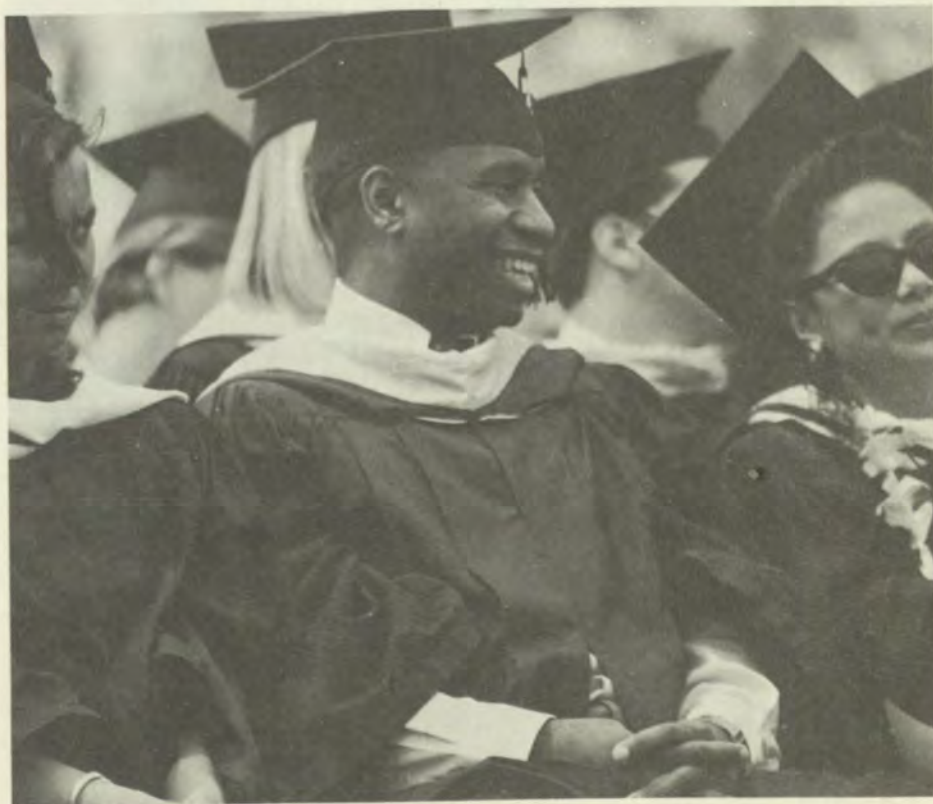
### Honors Convocation

At the annual University of San Diego Honors Convocation, a formal year-end assembly, awards are presented to a number of students who have shown exceptional attainment in academic and other areas of university life. Departmental honors are awarded to seniors who have maintained a grade point average of 3.5 in upper division courses in their major.

### Graduation Petition and Participation

By the date indicated in the current Academic Calendar, seniors who wish to graduate in January, May, or August must file in the Registrar's Office a petition for graduation. **Note: For those graduating in May 1996 or later, the petition for graduation will be processed only if lower division Indispensable Competencies in General Education, Category I, have been fulfilled.**

Seniors graduating in August may participate in the previous May ceremony, provided that: 1) they take their remaining courses in USD's Summer Sessions; and 2) they have regis-





tered (including payment) in USD's Summer Sessions for their remaining courses by May 1, and have given to the Registrar's Office written evidence of such completed registration. **THERE WILL BE NO EXCEPTIONS FOR ANY REASON WHATSOEVER.** August graduates who wish to take courses elsewhere (after procuring the appropriate waivers) may do so, **but they may not participate in the May ceremony.** (Note: Summer courses taken in USD's own program in Guadalajara meet the requirement for courses taken at USD.)

August graduates who wish to participate in the May Commencement ceremony should register in the Spring semester previous to the May ceremony for any needed courses that are not being offered at USD in the Summer Sessions immediately following Commencement. To facilitate the process of looking at the Spring and Summer courses together, a list of courses, dates and times of USD Summer Session offerings is made available in the Fall semester at the same time as the Spring semester *Schedule of Classes*. **Unavailability of a needed course in USD's Summer Session will not be grounds for an exception to the policy about Commencement participation; all information is made available to students the previous Fall to anticipate and avoid any such problems.**

#### Unit and Grade Point Requirements

To qualify for a degree, the student must earn a minimum of 124 college units of credit. A unit is defined as the amount of credit awarded for satisfactory performance in one lecture period or one laboratory period for one semester. A grade point average of C (GPA 2.0) is required in the total of collegiate work attempted, and in all work attempted at the University of San Diego.

Of the 124 units required for graduation, 48 must be in upper division courses, that is, those numbered 100 or higher. In order to enroll in courses which carry upper division credit the student is normally required to have reached second semester sophomore or junior class standing. Where, in the judgment of the department chair, the student has acquired the necessary basic proficiency, the student may be permitted to enroll in upper division courses for upper division credit even though he or she may still have only freshman or first semester sophomore standing. In such cases, the approval of the department chair must be filed, in writing, in the Office of the Dean of the College of Arts and Sciences.

#### Class Standing

Students reach sophomore standing after satisfactory completion of 30 units. Junior class and upper division standing are reached upon completion of 60 units. For senior class standing, 90 units must be completed.

#### Residence Requirement

Students are expected to complete the preponderance of their baccalaureate work at the University, especially in their junior and senior years. Leaves of absence for foreign study or transfer of courses to USD from other universities are permitted to meet legitimate educational goals of students prior to their senior year.

To satisfy the requirements for a degree, students must earn a minimum of the final 30 semester units of credit at the University of San Diego. This residence requirement is rarely waived, and then only for exceptional educational reasons.

#### Transfer of Credit

Academic courses from other accredited institutions are normally transferable, if the grades are C or better, and if the institution from which the grades were received is USD-approved. However, students should note that the University of San Diego has full discretion concerning which credits are applicable to its curricula and are therefore transferable. In addition to transcripts, students may need to provide documentation of courses taken.

A course will not be accepted if it duplicates work (that is, repeats essentially the same content) taken at the University of San Diego, except in cases where a grade of D or F was received in the University of San Diego course. Students should be aware of the requirement to take a second semester language course at USD (or pass a USD placement test that demonstrates language II proficiency) before petitioning for transfer of credit.

Students of the University who wish to take courses at other institutions should obtain **advance written approval** of their advisor, the department chair in the comparable department in which the course is being taken and the dean if they expect such courses to be accepted in fulfillment of degree requirements at the University of San Diego.

#### Transcripts

Any student may request one official transcript of his or her college record without charge. A fee of one dollar is charged for each additional transcript. Applications for transcripts should be made in writing to the Registrar.

#### The Academic Record

The *Academic Record* is a computerized version, or "road map," of courses or requirements that a student has fulfilled and a listing of those yet to be accomplished. Each semester, an automatically updated version of the *Academic Record* will be made available to the student. A duplicate copy will be provided to the student's advisor. The *Academic Record* will aid both student and advisor in keeping track of the student's progress at USD semester by semester.

Further information concerning the *Academic Record* can be found in the annual publication entitled *Undergraduate Student Advising Handbook*. Details concerning the University's class reservation process are also found in the same handbook, copies of which are available from the Office of the Registrar (F 113).

#### Public Availability of Student Theses and Dissertations

Copies of accepted graduate theses and doctoral dissertations by USD students will be incorporated into the Copley Library collection and will be catalogued in a national data base. Theses and dissertations will be accessible to the general public through normal circulation and interlibrary loan procedures.

### COURSE NUMBERING SYSTEM

#### Designation of Courses and Credits

Courses offered by the University are listed in the pages which follow, in alphabetical order by discipline within each school or College.

Lower division courses are numbered 1 to 99; upper division courses are numbered 100 to 199; graduate courses are numbered 200 to 299 (see *Graduate Bulletin*); professional courses are numbered in the 300's (field placement courses) and 600's (doctoral level). The letter W designates a course which fulfills the upper division writing requirement. The letter L following a course number indicates that it is a laboratory course. The letter H following a course number indicates an Honors course. This designation is used for particularly demanding courses offered as part of the Honors Program.

Courses offered yearly are so indicated, with the semester designated after the course description. Courses offered in alternate years generally have the semester when offered indicated after the course description.

The numbers in parentheses after the title of the course indicate the number of semester units of credit.



COLLEGE OF

*Arts & Sciences*

Patrick F. Drinan, Ph.D., Dean

Roger C. Pace, Ph.D., Associate Dean

Elizabeth F. Winters, M.Ed.  
Assistant Dean

Alana Cordy-Collins, Ph.D.  
Chair, Department of  
Anthropology/Sociology

Lisa A.M. Baird, Ph.D.  
Chair, Department of Biology

Patricia S. Traylor, Ph.D.  
Chair, Department of Chemistry

Linda A.M. Perry, Ph.D.  
Chair, Department of Communication  
Studies

Fred M. Robinson, Ph.D.  
Chair, Department of English

Sally Yard, Ph.D.  
Chair, Department of Fine Arts

Jacques Wendel, Ph.D.  
Chair, Department of Foreign Languages  
and Literatures

James O. Gump, Ph.D.  
Chair, Department of History

E. Clare Friedman, D. Phil.  
Chair, Department of Mathematics and  
Computer Science

Michael F. Wagner, Ph.D.  
Chair, Department of Philosophy

Thomas A. Kanneman, Ph.D.  
Chair, Department of Engineering and  
Physics and  
Director, Engineering Programs

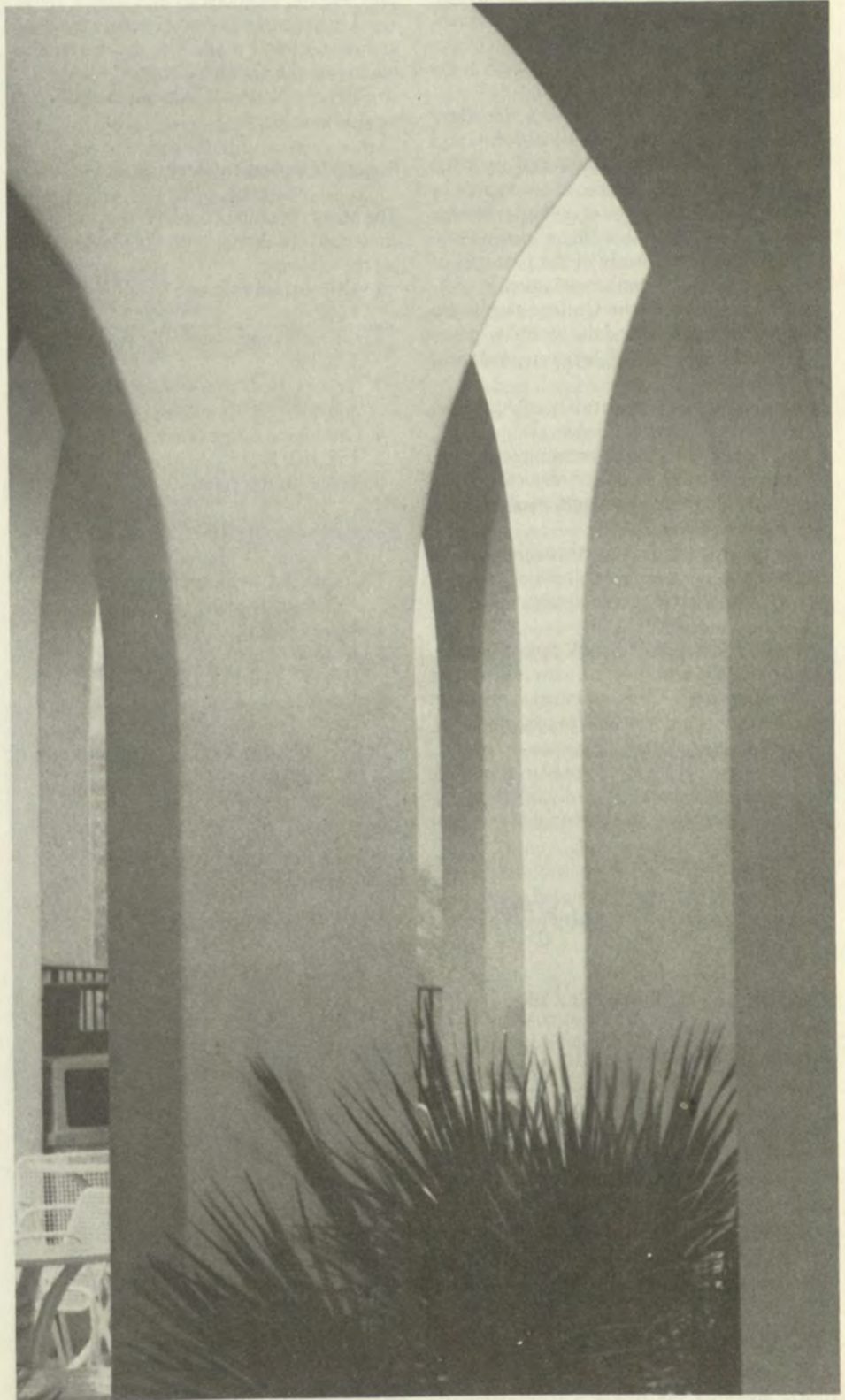
Lee Ann Otto, Ph.D.  
Chair, Department of Political Science

Daniel D. Moriarty, Ph.D.  
Chair, Department of Psychology

Kathleen M. Dugan, Ph.D.  
Chair, Department of Theological and  
Religious Studies

Fr. Ronald A. Pachence, Ph.D.  
Director, Graduate Programs  
Department of Theological and Religious  
Studies and Director, Institute of Christian  
Ministries

Hugh I. Ellis, Ph.D.  
Director, Marine and Environmental  
Studies Program





## THE COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences is a liberal arts college that is both historically and educationally the core of the University of San Diego. The intellectual disciplines within Arts and Sciences assist students in developing a coherent, integrated, and rich world view. Students in the College spend their undergraduate years discovering themselves as individuals, probing the commonalities of our lives on this planet, and deepening their appreciation of the sacred.

In all disciplines in the College, the meanings of life are explored in all its forms and processes. Likewise, each intellectual discipline in the College reflects a sense of community by involving students in a network of scholars. Many areas in Arts and Sciences immerse students in intensive study of the patterns of human, social and cultural organization. In addition, all curricula in the College emphasize higher order cognition and the centrality, precision, and integrity of written and oral communication.

The intellectual vitality of Arts and Sciences is manifested at three levels:

1. Exposure to the most current information on our complex social and physical worlds;
2. Cross-disciplinary integration of methods and perspectives; and,
3. Rigorous application through writing, research, oral communication, creative expression, and personal-career development.

Arts and Sciences faculty, then, are dedicated to a cooperative effort with students to construct knowledge from information, to shape wisdom from knowledge, and to secure competence that is united with conscience and a sense of values. Success will be evidenced in a renewed wonder at life, increased self-discipline, and a more refined sense of the potential of community.

# Anthropology

Alana K. Cordy-Collins, Ph.D., Chair  
Angelo R. Orona, Ph.D.  
Franklin A. Young, Ph.D.

The primary objectives of the program in Anthropology are to present the concept of culture and the part it plays in the analysis of human behavior, and to add a multicultural comparative perspective to the body of scientific inquiry. The program also highlights both the biological and cultural development of humans and their cultures via coursework in physical (biological) anthropology and archaeology.

Anthropology is an inclusive, generalizing science and as such it has application for all fields of endeavor. Courses in Anthropology are particularly suitable for persons interested in

international business, resource management, environmental concerns, teaching, educational administration, public service, public health and social work.

The major program in Anthropology will (1) prepare the interested undergraduate for future graduate studies in Anthropology, and (2) provide a general background for all humanistically oriented vocations.

Upon completion of 12 semester units of anthropology with a 3.0 GPA, students are eligible to join the Gamma Chapter of LAMBDA ALPHA, the National Collegiate Honor Society for Anthropology.

**Required preparation:** Anthropology 10, 20, 30.

**The Major:** 24 units of upper division coursework chosen in consultation with the advisor, including the following:

1. One prehistory course (Anthropology 110, 114)
2. One ethnology course (Anthropology 122, 128, 130)
3. Two methods courses (Anthropology 146 and one course from 140, 141, 142, 148)
4. One topical course (Anthropology 150, 152, 155, 160, 172)
5. Three elective courses

**Recommended supplementary coursework:**

1. Psychology 1 — Introductory Psychology
2. Sociology 1 — Introductory Sociology
3. A philosophy course (Philosophy 111, 183)
4. An environmental studies course
5. A world religion course (Religious Studies 110, 111, 112, 113, 114, 115)
6. A world history course

**The Minor:** Anthropology 10, 20, and 30 and nine upper division units.

All anthropology courses may be used to satisfy General Education requirements in the Social Science areas.

**Note:** Students wishing to earn a Social Science Teaching Credential may do so while completing a major in Anthropology. The specific requirements for the teaching credential differ from general requirements for the Anthropology major. Students should consult the department chair.

## INTRODUCTORY COURSES

### 10 Introduction to Physical Anthropology (3)

An investigation of the nature of humankind, including the history of evolutionary theory, the fossil record, dating techniques, primate evolution and behavior, and human heredity, variation, and adaptation. Prerequisite: None

### 20 Introduction to Cultural Anthropology (3)

An introduction to the character of culture and the nature of social behavior as developed

through the anthropological study of contemporary peoples; techniques of fieldwork; current problems and applications.

### 30 Introduction to Archaeology (3)

A discussion of the techniques and concepts used by archaeologists for developing insights into the behavior of past societies; a survey of the development of archaeological research in Old and New World areas.

### 102 Cultural Anthropology (3)

A course designed for the non-major which surveys the nature of culture as the matrix of social behavior. Discussion of aboriginal economic systems, social organizations, law, religious systems, educational processes, folk medicine, ethnographic studies and methods.

## PHYSICAL ANTHROPOLOGY COURSES

### 105 Human Evolution (3)

An examination of early development and current knowledge about origins of modern humans and their relationships to the Neandertals. Examples from contemporary literature will be analyzed in light of recent scientific reconstructions. Prerequisite: Anthropology 10 or consent of instructor.

## PREHISTORY COURSES

### 110 Ancient Mesoamerica (3)

An introduction to the remarkable accomplishments of the ancient inhabitants of Mesoamerica (Mexico, Guatemala, Belize, Honduras, and El Salvador). The course focuses on the impressive achievements of the Olmecs, Mayas, Toltecs, and others in the areas of art, ideology, writing, calendrics, mathematics, and politics. The course is especially concerned with transition periods which resulted from catastrophic collapses of cultural systems. Prerequisite: Anthropology 30.

### 114 Ancient Cultures of the Andes (3)

An introductory survey of the prehistoric cultures of Peru, Bolivia, Ecuador, and Chile. The focus of the course is upon the artistic, ideological, social, and economic aspects of the Chavin, Moche, Nasca, Inca, and other cultures. The development and evolution of prehispanic Andean society are examined from a processual viewpoint. Prerequisite: Anthropology 30.

## ETHNOLOGY COURSES

### 122 South American Indian Cultures (3)

A survey of the aboriginal populations of South America; origins and culture types; development of civilization as revealed by archaeology and colonial writings. Prerequisite: Anthropology 20 or consent of instructor.

### 128 Pacific Cultures: Australia and Melanesia (3)

This course examines both the prehistory and traditional cultures of the aboriginal inhabitants of Australia and Tasmania, along with the



Melanesian cultures of New Guinea and adjacent archipelagoes in the southwestern Pacific region. Additionally, the geological foundations and physical geography underlying these cultures, the impact of European contact on them, and their current status will be discussed. Prerequisite: Anthropology 20 or consent of instructor.

### 130 Pacific Cultures: Micronesia, Polynesia (3)

The far-flung traditional cultures of Micronesia and Polynesia, located principally in the heart of the Pacific Basin, will be surveyed and analyzed in terms of their political, social, religious, economic, and linguistic patterns. Included, too, will be coverage of the geology, physical geography, and prehistory of these cultures, as well as overviews of the impact of European contact and the current status of these insular oceanic cultures. Prerequisite: Anthropology 20 or consent of instructor.

## METHODS COURSES

### 140 Museum Archaeology (3)

A curation/exhibit research course in which archaeological materials are selected, studied, and assembled in student-designed projects. Students will learn label writing techniques, the use of graphics to showcase objects, and proper exhibit curation procedures. Prerequisite: Anthropology 30.

### 141W Museum Ethnology (3)

This is a combination seminar and field course in which local museums are visited, observed, and critiqued. Additionally, each student is required to design (but not actually mount) an original ethnological or ethnographic display project. Prerequisite: Anthropology 20 or consent of instructor.

### 142 Advanced Museum Science (1-3)

This tutorial course in museological techniques can be pursued from a variety of avenues, dependent upon the number of units selected and the specialization, whether archaeological, ethnographic, or physical anthropological. The student may choose to emphasize education, curation, exhibition, collections management, or research. Prerequisite: Anthropology 10, 20, or 30, as appropriate.

### 146 Ethnographic Field Methods (3)

A fieldwork course which reviews standard ethnographic methods through the discussion of participation/observation and interviewing techniques, life history studies, the genealogical method, and etic-emic distinctions. The course provides the opportunity for individual field research projects using ethnographic techniques. Prerequisite: Anthropology 20.

### 148 Visual Anthropology (3)

A combination of seminar and field project course which explores the application of both still picture and motion picture photography to

ethnographic data collecting. Ethnographic films are analyzed for technique as well as content distribution. Still picture photography is featured as a primary ethnographic tool. Prerequisite: Anthropology 20.

### 149W Writing Anthropology (3)

Anthropologists write using a wide variety of formats, but two are especially critical: professional publication (books and journals) and grant proposals (both for funds and fellowships). Students in this course will learn to communicate effectively in both formats following guidelines established by the American Anthropological Association and various funding agencies such as the National Endowment for the Humanities and the National Science Foundation. Prerequisite: Anthropology 10, 20, or 30.

## TOPICAL COURSES

### 150 Man and Language (3)

A cultural interpretation of the structures, functions, variations, meanings and behaviors associated with the development and use of human language systems. Prerequisite: Consent of instructor.

### 152 Kinship and Social Organization (3)

Kinship systems mainly of non-western societies; organization of social life; marriage regulations and kinship role patterns; methods of kinship analysis. Prerequisite: Anthropology 20.

### 155 Exotic Art and Creativity (3)

A course concerned with art as an integral aspect of culture. This course samples a wide



range of cultures and art traditions, and may include Paleolithic Europe, the Huichol Indians of western Mexico, the Australian Walbiri, the Nambudiri Brahmins of India, and the Nigerian Ossa. Both the technology and the concept of art in societies are studied. Prerequisite: Consent of instructor.

### 160 Primitive Religion (3)

An examination of the elements, forms, and symbolism of religion among primitive peoples; role of religion in society; anthropological theories of belief systems. Prerequisite: Anthropology 20.

### 172 Comparative Society (3)

A cross-cultural study of social systems; principles of organization and relationships of society to ecological conditions; strategies of ethnographic fieldwork, concept formation, and research design. Prerequisite: Anthropology 20 or consent of instructor.

### 194 Problems in Anthropology (3)

Critical discussions with regard to major theoretical issues confronting the various sub-disciplines of anthropology. Prerequisite: Consent of instructor.

### 196 Research (3)

A project developed by the student, in consultation with an instructor, which produces new knowledge for the discipline. Evidence of accomplishment might include a potentially publishable paper. The research may be conducted in the laboratory, field, or library. Prerequisite: Consent of instructor.

### 197 Internship (3)

An apprenticeship to be undertaken within the San Diego anthropological community (that is, The Health Alliance Foundation, Cultural Resource Management Co., the Office of the San Diego County Archaeologist, CALTRANS, etc.). The apprenticeship will be developed by the student, his or her mentor, and the Anthropology Department. Prerequisite: Consent of department chair.

### 198 Museum Internship (3)

An apprenticeship to be undertaken at the San Diego Museum of Man. The student will work in concert with a Museum of Man staff anthropologist. May include any field within the Museum's program (that is, education, curation, exhibit design and implementation, etc.). Prerequisite: Consent of department chair.

### 199 Independent Study (1-3)

A project developed by the student in coordination with an instructor, which investigates a field of interest to the student not normally covered by established anthropology courses. Prerequisite: Consent of instructor and department chair.



# Art

Sally E. Yard, Ph.D.

Chair, Fine Arts

Coordinator, Art History

Derrick Cartwright, M.A.

Director, Founders Gallery

Florence Spuehler, M.A.E.

Coordinator, Studio Art

John Halaka, M.F.A.

Duncan McCosker, M.F.A.

Saba M. Oskoui, M.F.A.

**Preparation for the Major:** Art 1, 2, 3, 4, 33 and 34

**The Major:** Students may concentrate in either the Studio Art or Art History area.

**Studio Art:** Within the 28 upper division units required for the major, a student must elect a specialization by the successful completion of at least three courses in any one sub-discipline, after completion of all lower division prerequisite courses. The programming of all supporting courses will be made by the student, the advisor, and at least one other art faculty member. It will be the responsibility of each student to submit a portfolio to the advisor before the senior year course selection is approved. That portfolio shall consist of examples of work in each course for which the student has earned credit. Senior Thesis (Art 195) is required for graduation.

**Art History:** Students choose one of three sub-disciplines:

1. Art History (general)
2. Art Management
3. Art in Public Service

Each student with an Art History emphasis must submit a statement of direction in the sixth semester of study after completion of the prerequisites: Art 3, 4, 33, 34.

**Art History (General):** Twenty-eight upper division units should be selected from Art 130-141, 194, 197, 199. Senior Thesis (Art 195) is required for graduation.

**Certificate in Art Management:** A synthesis of business and professional training with an art history emphasis, directed toward positions in art-related business and institutions. (Prerequisites are as in the major.)

1. Art Components: Art 134, 141, 195, 197, and any six courses selected from Art 130, 131, 132, 133, 135, 136, 137, 139, 141, 149, 194.
2. Management Components: Business Minor, or the following courses (many satisfy General Education): Accounting 1, English 175W, Communication Studies 3, Political Science 15 or 102, Sociology 10 or 145, Business 86. Economics 11 is recommended.

**Art in Public Service:** The program endeavors to direct the student's historically informed visual judgment toward creative solutions to contemporary social problems. It fortifies traditional art history training with an intensified focus upon written and verbal communication and a comprehension of business skills as well as social responsibility. (Prerequisites are as in the major). Six courses must be selected from Art 131, 133, 134, 135, 137, 139, 141, 194. Students must take Art 195 and 197, plus nine upper division units in non-art areas, chosen by the student with approval of the advisor, which will prepare the student for applying art history to the resolution of contemporary social problems.

## The Minors:

- 1) The minor in Art History consists of the prerequisites Art 3, 4, 33, 34, and 12 upper division units selected from: 130-137, 139, 141, 149, 194.
- 2) A minor in Studio Art requires Art 1, 2, 3, 4, 33, 34, and 12 upper division studio units.

## The Single Subject Teaching Credential Program in Art

The credential, developed in cooperation with the School of Education, qualifies a student with a Bachelor of Arts degree in Art to teach kindergarten through twelfth grade art in the California public schools. Interested students must see the Art Coordinator early in their program planning in order to fulfill the requirements leading to this certificate. Courses marked with an asterisk (\*) are required for the credential. Additional course requirements may be necessary.

## COURSES

### 1 Fundamentals of Drawing: Part 1 (3)\*

Introduction to the fundamental elements and principles of drawing. Exploration of a variety of dry and wet media. Primary emphasis on developing the student's perceptual capabilities and representational skills. Includes an investigation of the depiction of spatial illusion through perspective. Required for Art Majors. No prerequisites. (Every semester)

### 2 Fundamentals of Drawing: Part 2 (3)\*

Continued exploration of the elements, principles and tools of drawing with an emphasis on composition. Assignments, lectures and historical examples will further stress objective naturalism and begin to explore subjective expression through the language of drawing. Required for Art Majors. Prerequisite: Art 1. (Every Spring)

### 3 Design (3)\*

The fundamentals of two-dimensional design which stress the dynamics of line, value, color, shape, texture, and arrangement. Required for Art majors. No prerequisite. (Every Fall)

## RECOMMENDED PROGRAM OF STUDY

### FRESHMAN YEAR

Semester I	Semester II
Preceptorial (3)	Art 4 (3)
Art 3 (3)	GE or Electives (12-13)
GE or Electives (9-10)	

### SOPHOMORE YEAR

Semester I	Semester II
Art 1 (3)	Art 2 (3)
Art 33 (3)	Art 34 (3)
GE or Electives (9)	GE or Electives (9)

### JUNIOR YEAR

Semester I	Semester II
Art Elective (3)	Art Elective (3)
Art Elective (3)	Art Elective (3)
Art Elective (3)	Art Elective (3)
GE or Electives (6-7)	Electives (6)
	Portfolio Review

### SENIOR YEAR

Semester I	Semester II
Art Elective (3)	Art 195 (1)
Art Elective (3)	Art Elective (3)
Art Elective (3)	Art Elective (3)
Electives (6)	Art Elective (3)
	Electives (6)

### 4 Three-Dimensional Design (3)\*

Fundamentals of three-dimensional design stressing the dynamics of form and structure. Required for Art majors. No prerequisite. (Every semester)

### 6 Introduction to the Visual Arts (3)

Lecture course, designed primarily for non-Art Majors. Thematic exploration of the functions, styles, elements and techniques of the visual arts in a variety of media, including: painting, drawing, photography, architecture, sculpture and design. No prerequisite. (Every semester)

### 8 Design with Computers (3)

An introduction to the use of computers in art and design. Students use the Macintosh computer, color scanner, color printer, paint, draw, illustration and page layout software. Prerequisite: Art 3. (Every Fall)

### 33 Art History (3)\*

A critical, chronological survey of the two- and three-dimensional expressions of dominant cultures from the prehistoric era to the Renaissance. Required for Art majors. No prerequisite. (Every Fall)

\*Courses marked with an asterisk are required for the Single Subject Teaching Credential Program in Art.



**34 Art History (3)\***

A critical, chronological survey of the two- and three-dimensional expressions of dominant cultures from the Renaissance to the present. Required for Art majors. No prerequisite. (Every Spring)

**100 Graphic Communications (3)**

Introduction to ideas, basic materials and production techniques used in contemporary graphic communications. May be repeated for credit once. Prerequisites: Art 1, 2, 3 and 8. (Every semester)

**101 Advanced Graphic Communications (3)**

Advanced problem solving with emphasis on research, design concepts, planning, execution and final presentation. May be repeated for credit once. Prerequisites: Art 8 and 100. (Every Spring)

**103 Intermediate/Advanced Drawing (3)**

This course will further refine the student's technical, perceptual and expressive drawing skills through several series of large scale drawing compositions. Emphasis on broad experimentation with traditional and non-traditional drawing techniques and media. May be repeated for credit once. Prerequisites: Art 1 and 2. (Every Fall)

**106 Advanced Design (3)**

This course emphasizes the importance of concept and content within various two-dimensional design strategies. Prerequisites: Art 3 and consent of instructor. May be repeated for credit.

**108 Advanced Computer Imagery (3)**

Creative problem solving using Macintosh computer systems. Topics include: Advanced digital image editing; three dimensional modeling and animation. May be repeated for credit once. Prerequisite: Art 3 and 8. (Every Spring)

**110 Color Theory (3)**

A course dealing with the scientific aspects of color applicable to various media. Includes color sensations, value, saturation and color harmony. Prerequisites: Art 1, 2 and 3. May be repeated for credit.

**128 Fundamentals of Painting (3)\***

Introduction to the fundamental elements, tools and materials, as well as the technical and aesthetic concepts necessary for successful expression through the language of painting. Prerequisite: Art 1 and 2. May be taken concurrently with Art 2, with the prior consent of the instructor. (Every semester)

**129 Intermediate/Advanced Painting (3)**

A studio course designed to further refine the technical skills of the intermediate student through the objective depiction of forms and the expressive manipulation of the medium of painting. Advanced students will be presented with



conceptual and expressive assignments and will be required to develop independently conceived projects. May be repeated for credit. Prerequisites: Art 128. (Every semester)

**130 History of Decorative Art (3)**

The history and critical analysis of furniture, glass, ceramics, porcelains, and textiles in Western Europe and America from the Medieval Era to the present. Eastern examples will be included when they pertain to Western culture.

**131 Art in Public Places (3)**

A consideration of the expressive import and historical context of art in public places, with emphasis on work since World War II.

**132 History of Prints (3)**

The development of intaglio relief and planographic systems from the 15th century to the present. Archival methods and appropriate exhibition techniques will be explored. Prerequisites: Art 33, 34.

**133 History of Modern Art (3)**

The historical, social and design dynamics of art movements from the Neo-Classical period to World War I explored through lectures and directed research. Prerequisites: Art 33, 34. (Every Fall)

**134 History of Contemporary Art (3)**

A critical survey of painting, sculpture, and architecture from World War I to the present. Prerequisites: Art 33, 34. (Every Spring)

**135 History of Oriental Art (3)**

A critical and historic survey of Chinese, Japanese, Indian, and Korean art.

**136 History of Photography (3)**

A chronological survey of the major movements of the photographic medium, and the relation of these developments to events in other visual arts. Includes a description of the proper methods for the conservation and exhibition of historic photographs.

**137 History of American Art (3)**

The development of fine and applied art forms in the United States from the Colonial migration to the present era.

**139 Museum Studies (3)**

An examination of the history, structure, philosophy and roles of museums, alternative spaces, and public art programs. The class will meet with a number of area museum professionals, and will gain firsthand experience in the curating of an exhibition and preparation of a catalogue for Founders Gallery. (Every Spring)

\*Courses marked with an asterisk are required for the Single Subject Teaching Credential Program in Art.



**141 Exhibition Design (3)**

A practical course in the design, execution, and management of professional galleries, museum, and exhibition areas. Students will deal with all aspects of presentation in Founders Gallery and local museum opportunities. May be repeated for credit. No prerequisite. (Every semester)

**144 Figure Drawing (3)**

A studio course emphasizing the structure and anatomy of the human figure. A variety of drawing techniques and media will be utilized to depict the live model. May be repeated for credit. Prerequisites: Art 1 and 2. (Every Spring)

**149 History of Books and Printing (3)**

A survey of the development from ancient times of man's methods of recording information and various methods of printing and reproduction. Does not satisfy a General Education requirement. Cross-listed as Library Science 149.

**150 Art Fundamentals (3)\***

A study of the fundamentals of art as they relate to creative and mental growth. Emphasis is placed on the stages of development from preschool through junior high school. Hands-on experience with appropriate media and techniques, combined with motivational topics that help in establishing the creative atmosphere which stimulates growth of visual expression. Materials fee. (Every Fall)

**160 Photography (3)**

An introductory lecture and laboratory course which stresses black and white camera technique and darkroom procedures. The course encourages the student to investigate photography as a medium of personal expression. Materials and lab fees not included. A camera is necessary. (Every semester)

**161 Advanced Photography (3)**

Advanced lecture and laboratory course that continues to develop the student's artistic and technical skills. Advanced topics include the 4 x 5 camera, zone system, kodak and non-silver techniques. Materials and lab fees not included. A camera is necessary. May be repeated for credit. Prerequisite: Art 160 (Every Spring)

**162 Portraits in Photography (3)**

This course in Studio Art requires the student to make portraits in color and black and white photographic media. Students are required to complete a body of work reflecting the concerns of portraiture within a fine arts context. Camera is required. Lab and materials fees not included. No prerequisites.

**164 Sculpture (3)**

Multi-media studio projects dealing with third-dimensional sculpture forms. May be repeated for credit. Prerequisites: Art 3 and 4. (Every Spring)

**171 Weaving (3)\***

Harness, tapestry and off-loom weaving with variations on the differences between techniques and design potential. May be repeated for credit. Prerequisite: Art 3. (Every Spring)

**174 Ceramics (3)\***

Basic building and throwing techniques related to both functional and sculptural third dimensional forms. Introduction to glaze theory as well as decorative enhancements. A brief history of ceramic development through the ages is included. Materials fee. May be repeated for credit. (Every Fall)

**194 Seminar (3)**

Discussions and projects carried out in a small group using directed research techniques which usually focus upon art's application to social values and problems. Content is variable and related to local opportunities. May be repeated for credit. Prerequisites: Art 33, 34 and consent of instructor required. (Every Fall)

**195 Senior Thesis (1)\***

A selection by the student of those works done throughout his or her course of study which epitomize the most significant growth. The works together with a written defense of his or her direction are presented to the art faculty. Seniors with an art history concentration will present a written, subjective thesis to the art faculty and an illustrated lecture. Required for graduation. (Every semester)

**197 Museum Internship (3)**

Practice of the specialized skills of registration, exhibition, curation, development, public relations, or education at local museums under the direct supervision of their senior staff. Prerequisites: Art 33, 34, 133 and consent of the faculty required prior to registration. (Every semester)

**198 Studio Internship (1-3)**

The practice of the specialized skills, tools, basic materials and production techniques at local professional art studios under the direct supervision of their senior staff. Consent of instructor prior to registration. (Every semester)

**199 Independent Study (1-3)**

Individual selection of a project in one art area. Consent of instructor and coordinator before registration. (Every semester)

# Biology

Lisa A. M. Baird, Ph.D., Chair

Hugh I. Ellis, Ph.D.

Jeremy H. A. Fields, Ph.D.

Richard J. Gonzalez, Ph.D.

Mary Sue Lowery, Ph.D.

Cole Manes, M.D., Ph.D.

Gregory K. Pregill, Ph.D.

Marie A. Simovich, Ph.D.

Curt W. Spanis, Ph.D.

The Department of Biology offers a program of general courses that allows the student to obtain a thorough preparation for graduate or professional school, to meet state requirements for a teaching credential in the life sciences, to acquire the laboratory training necessary for entry into advanced programs in biotechnology, or to supplement other major studies with a broad background in biology. A strong emphasis is placed on laboratory and field experience, not only to acquaint the student with the working methods of science, but to foster proficiency in a number of basic experimental techniques, as well. An internship experience is also offered to upper division biology majors so that they may participate in the application of biological knowledge to problems in the off-campus world.

The following high school preparation is strongly recommended for students planning a major in biology at USD: elementary algebra, plane geometry, intermediate algebra, trigonometry, chemistry, physics, and biology. Three years of study in a modern foreign language are also recommended.

Students are urged to consult departmental advisors early in their college career in order to select a program of courses most suitable to their high school background and to their future goals. The high faculty-to-student ratio allows each student to receive individualized assistance in course selection and career planning. The structure of the biology major allows each student to focus his or her studies in one or more areas of interest. For those students preparing for careers in the health sciences, a special University committee is available to advise and assist them in their applications to professional school.

**Preparation for the Major:** Biology 19, 20, 20L, 21, 21L, Chemistry 10A-B and 11A-B, Physics 42, 43 or equivalent, introductory college calculus, and a minimum of 4 units of organic chemistry with laboratory.

**The Major:** A minimum of 28 upper division units in biology is required. These must include Biology 101, 197, one course with laboratory from cellular/molecular biology, one course with laboratory from ecological/evolutionary biology, and one course with laboratory from organismal/morphology.



ical biology. The remaining 12 units must include one additional course from one of the preceding areas of biology and two additional courses with laboratory. Students may choose electives according to their interests from those courses for which the prerequisites have been satisfied. At least 16 of the upper division units for the major must be completed at USD.

#### The required courses:

- Biology 19 - Genetics, Ecology and Evolution (3)
- Biology 20, 20L - Principles of Biology (4)
- Biology 21, 21L - Biology of Organisms (4)
- Biology 101 - Genetics (3)
- Biology 197 - Senior Seminar (1)

#### Area of Cellular/Molecular Biology

- Biology 172 - Plant Physiology (4)
- Biology 176 - Developmental Biology (4)
- Biology 178, 178L - Animal Physiology (4)
- Biology 180, 180L - Cell Physiology (4)
- Biology 182 - Molecular Biology (4)

#### Area of Ecological/Evolutionary Biology

- Biology 110 - Evolution (3)
- Biology 116 - Population Biology (4)
- Biology 151, 151L - Biological Oceanography (4)
- Biology 160 - Ecology (4)
- Biology 164 - Conservation Biology (3)

#### Area of Organismal/Morphological Biology

- Biology 120 - Comparative Chordate Anatomy (4)
- Biology 130 - Histology (4)
- Biology 135 - Embryology (4)
- Biology 142 - Microbiology (4)
- Biology 144 - Plant Systematics (4)
- Biology 146 - Vertebrate Natural History (4)
- Biology 150 - Invertebrate Zoology (4)

**The Minor:** Minimum requirements for the minor are Biology 19, 20, 20L, 21, 21L or equivalent, and at least seven units of upper division biology, for a total of at least 18 units. Courses for the minor should be selected with the aid of a biology faculty advisor. At least four units of upper division biology must be taken at USD.

**Note:** The California Life Science Teaching Credential requires a major in Biology. Students seeking this credential should consult a Biology departmental advisor.

### SPECIAL PROGRAMS OF STUDY

Several model programs of study are listed below and should serve to illustrate the adaptable nature of the biology curriculum. Specific programs of study other than those listed below can be designed with the aid of an advisor from the Biology faculty. Students interested in biotechnology, environmental biology or medical technology should consult with their advisors regarding appropriate course selection.

### RECOMMENDED PROGRAM OF STUDY

#### FRESHMAN YEAR

Semester I	Semester II
Preceptorial (3)	Biology 20 or 21 (3)
Biology 19 (3)	Biology 20L or 21L (1)
Chemistry 10A (3)	Chemistry 10B (3)
Chemistry 11A (1)	Chemistry 11B (1)
GE or Electives (3-6)	Mathematics (3-4)
	GE or Electives (3-6)

#### SOPHOMORE YEAR

Semester I	Semester II
Biology 20 or 21 (3)	Biology 101 (3) or Biology (4)
Biology 20L or 21L (1)	Physics or GE (3-4)
Organic Chem. (3)	GE or Electives (6-9)
Organic Chem. Lab (1)	
Physics or GE (3-4)	
GE or Electives (3-6)	

#### JUNIOR YEAR

Semester I	Semester II
Biology (4-8)	Biology (4-8)
Physics or GE (3-4)	Physics or GE (3-4)
GE or Electives (3-13)	GE or Electives (3-13)

#### SENIOR YEAR

Semester I	Semester II
Biology 197 (1) or Biology (4-8)	Biology 197 (1) or Biology (4-8)
GE or Electives (3-12)	GE or Electives (3-12)

#### Marine Biology

In addition to the general program, Biology 100, 146, 150 and 151-151L are recommended. A minor in Environmental Studies is recommended for those students interested in field applications. The University of San Diego also offers a major in Marine Science (see Marine Science section).

#### Pre-Medicine and Pre-Dentistry

The program for either Pre-Medicine or Pre-Dentistry is similar to the biology major general program with certain of the options being specified or recommended.

**First year:** Chemistry 10A-B, 11A-B and at least introductory calculus

**Second year:** One year of organic chemistry with laboratory

**Third year:** Either Biology 178 or 180 or 182 is recommended in preparation for the Medical College Admissions Test (MCAT).

**Fourth year:** Completion of the biology major

#### Pre-Veterinary Medicine

In addition to the program for pre-medical/pre-dentistry students, Biology 120, 135, 142 and one semester of biochemistry are recommended.

It is the responsibility of all pre-professional students seeking recommendation to professional schools to contact the Chair of the Health Sciences Student Evaluation Committee (whose name can be obtained from the biology department chair) no later than the Fall semester of their junior year.

The pre-professional programs for pharmacy, optometry, physiotherapy and nursing are designed around the general program. No recommended program of study is suggested because of the variability of requirements among professional schools. Students should set up their schedules to include those courses specifically recommended by the professional schools to which they plan to apply.

### COURSES FOR NON-MAJORS

**Note:** Biology 1, 2, 3, 4, 11, or 15 will satisfy the General Education requirement. There are no prerequisites. Biology 1, 2, 3, and 4 may be offered without a laboratory in which case there will be three hours of lecture weekly. These courses do not satisfy requirements for the biology major.

#### 1 Survey of Biology (3)

A one semester course in the general concepts of biology providing the nonmajor with an overview of the living world and the principles of life processes. Two hours of lecture and one laboratory weekly.

#### 2 Ecology and Environmental Biology (3)

Investigation of the natural environment and the relationship of its biotic and abiotic components. Topics will include the ecosystem concept, population growth and regulation, and our modification of the environment. Laboratory will include field trips, one of which will be an overnight trip to the desert. Two hours of lecture and one laboratory weekly. Cross-listed as Environmental Studies 2.

#### 3 Plants and Peoples (3)

A one semester course about humans and their knowledge, uses and abuses of plants. The biology of plants, selected protists and fungi are considered from a scientific viewpoint; included are ecology, anatomy, morphology, physiology, taxonomy and biotechnology. These organisms are also considered with regard to resource utilization and agriculture: the uses and abuses of plants for fibers; foods; beverages; medicinals and other ends occupying the majority of the course. Three hours of lecture weekly.



**4 Topics in Human Biology (3)**

This is a course in general biology with a human emphasis for non-majors. The general principles of evolution, genetics, biochemistry, and physiology are illustrated by reference to normal and abnormal human body function. Behavioral biology and ecology are also treated from a primarily human viewpoint. Two hours of lecture and one laboratory weekly.

**11 Life in the Ocean (4)**

An introduction to the plant and animal life in the ocean, including their phylogenetic and ecologic interrelationships. Biological principles and processes that are basic to all forms of life in the ocean will be stressed. Three lectures and one laboratory or field trip per week. A weekend field trip may be required. Cross-listed as Marine Science 21.

**15 Physiology of Exercise (4)**

The acute and chronic effects of exercise on the various organ systems and the role of nutrition are studied. Kinesiological application of anatomical information is also examined. Three hours of lecture and one laboratory weekly.

**COURSES FOR BIOLOGY MAJORS****19 Introduction to Genetics, Ecology and Evolution (3)**

This one semester foundation course for biology majors provides an introduction to the mechanisms of inheritance, evolution and ecology. Three hours of lecture weekly. No prerequisite. (Every semester)

**20 Principles of Biology (3)**

This one semester foundation course for biology majors provides an introduction to the concepts of structure and function in biological systems at the molecular and cellular level. The topics of cell structure and function, biological macromolecules, respiration, photosynthesis, molecular biology, and selected areas of physiology are covered with emphasis on regulatory mechanisms. Three hours of lecture weekly. Prerequisites: Concurrent registration in Biology 20L; General chemistry and college algebra are strongly recommended. (Every semester)

**20L Principles of Biology Laboratory (1)**

A laboratory course to complement the lecture material presented in Biology 20. Prerequisite: Concurrent registration in Biology 20 or consent of instructor. (Every semester)

**21 Biology of Organisms (3)**

This one semester foundation course for biology majors provides an introduction to the major groups of organisms with an emphasis on their structure, function, and evolutionary relationships. Three hours of lecture weekly. Concurrent registration in Biology 21L is strongly recommended. (Every semester)

**21L Biology of Organisms Laboratory (1)**

A laboratory course to complement the lecture material presented in Biology 21. Prerequisite: Concurrent registration in Biology 21 or consent of the instructor. (Every semester)

All courses numbered 100 and above have Biology 19, 20, 20L, 21, 21L as prerequisites or consent of instructor. Other prerequisites are as specified.

**100 Biostatistics (3)**

A methodology course which includes elementary probability, sampling techniques, unbiased and ratio estimation, sampling distributions, central limit theory, efficiency, an introduction to classical inference and nonparametric (permutation) testing techniques. Three hours of lecture weekly.

**101 Genetics (3)**

A general course covering the mechanisms of inheritance at the molecular, organismal, and populational levels. Elementary probability and statistical methodology appropriate for the analysis of various genetic systems are introduced. Three hours of lecture weekly. Prerequisite: Completion of or concurrent registration in general chemistry. (Every semester)

**101L Genetics Laboratory (1)**

This laboratory course examines classical and current experimental techniques and analyses used in genetics. One laboratory weekly. Prerequisite: Completion of or concurrent registration in Biology 101.

**110 Evolution (3)**

A study of the current concepts of evolution. The nature of species, isolating mechanisms, evolutionary genetics, selective pressures, and other fundamental concepts will be considered. Three hours of lecture per week.

**116 Population Biology (4)**

The mechanisms of evolution and the dynamics of ecosystems are studied through the development of mathematical and computer models. The mathematics and computer programming experience required in this course beyond the level of Mathematics 14 (Calculus) will be introduced as needed. Research techniques used in investigating population phenomena are emphasized. Three hours of lecture and one laboratory weekly. Prerequisites: Introductory calculus and Biology 101. Biostatistics is highly recommended.

**120 Comparative Chordate Anatomy (4)**

A comparative study of the various classes of vertebrates at the structural level. The laboratory includes comparative dissection of representative organisms. Two hours of lecture and two laboratories weekly.

**130 Histology (4)**

An intensive study of the basic types of tis-

suess and organs at the microscopic level. Structure and associated function are emphasized. The laboratory concentrates on the light microscopic study of tissues and offers students the opportunity to perform basic histological techniques. Three hours of lecture and one laboratory weekly.

**132 Electron Microscopy (4)**

An introduction to the theory, development and operation of the electron microscope with emphasis on development of knowledge of cellular fine structure. The laboratory portion of the course will focus on tissue preparation, microscope operation and evaluation and presentation of electron microscopic data. Two hours of lecture and two laboratories weekly.

**135 Embryology (4)**

A study of the fundamental concepts of development, gametogenesis, fertilization, morphogenesis, and organogenesis in vertebrate embryos. Emphasis is placed on maintaining an overall view of the developmental processes as they relate to and further progress toward adult structure and function. Specimens studied in lab include whole mounts, serially-sectioned embryos and live embryos. Three hours of lecture and one laboratory weekly.

**142 Microbiology (4)**

An introduction to bacteria, viruses, yeasts, molds, protozoa and microalgae. The microbes pathogenic to man are emphasized. Principles of immunology, chemotherapy, and industrial, agricultural and marine microbiology are presented. The laboratory stresses procedures in culturing and handling microorganisms. Two hours of lecture and two laboratories weekly. Prerequisite: One year of general chemistry.

**144 Plant Systematics (4)**

An introduction to the plant communities of California. The predominant flowering plant families will be stressed in lecture. Field identification of plants will be emphasized in the laboratory sessions. Three hours of lecture and one laboratory weekly. (Spring)

**146 Vertebrate Natural History (4)**

A course in the biology of the vertebrates. Although vertebrate structure, function, and development are studied, emphasis is upon the behavior, evolution, and interaction of the vertebrate organism as a whole or at the population level. Techniques of identification and study are covered in the laboratory and field. Three hours of lecture and one laboratory or field trip weekly. (Spring)

**150 Invertebrate Zoology (4)**

A survey of the invertebrate animals with emphasis on evolutionary relationships among the groups as expressed by their morphology and physiology. Three hours of lecture and one laboratory weekly.



**151 Biological Oceanography (3)**

An integrated study of marine organisms and their environments, stressing ecological, behavioral, and physiological relationships. Nearshore, deep sea and open ocean environments will be covered. A weekend field trip may be required. Cross-listed as Marine Science 151.

**151L Biological Oceanography Laboratory (1)**

Laboratory and field work to accompany Biology 151. Concurrent registration in Biology 151 is required.

**160 Ecology (4)**

An integrated approach to plant and animal relationships in terrestrial and aquatic ecosystems. The lecture investigates ecosystem energetics, population dynamics, community structure and physiological adaptations. The laboratory concentrates on population and community problems in a few environments. There will be one overnight field trip to the desert. Three hours of lecture and one laboratory weekly. Prerequisite: Introductory Calculus. Biostatistics is recommended.

**161 Ecological Communities of San Diego County (2)**

A general survey of the ecological communities of San Diego County will acquaint students with local marine, freshwater, chaparral, and desert habitats. The course is primarily field study, and one overnight trip to the desert will be included. Identification of organisms and their ecological relationships will be stressed. One laboratory weekly.

**164 Conservation Biology (3)**

The course focuses on the history of conservation awareness, theory, and practice. Lectures address conservation biology from a historical perspective; readings and discussion are directed toward both classic and current literature. Student presentations will be expected. Weekend field trips may be required. Three meetings per week. Prerequisite: Biology 21; Biology 101 recommended. Cross-listed as Environmental Studies 164.

**168 Marine Ecology (3)**

Discussions of the ecological relationships within the sea, including such topics as production, community structure, and biogeography. Communities discussed may range from the coast to the deep sea, and will cover plankton, nekton, and benthon. Three hourly meetings per week consisting of lectures and seminars. Prerequisite: Biology 160 or concurrent enrollment. Cross-listed as Marine Science 168.

**172 Plant Physiology (4)**

An introduction to the basic processes occurring in vascular plants. Movement of water and solutes; photosynthesis and respiration; plant growth and development, including plant hormones and growth regulators; and plant reactions to environmental stress will be studied. Three

hours of lecture and one laboratory weekly. Prerequisite: One year of general chemistry with laboratory.

**174 Neurobiology (3)**

The physiological basis of behavior is examined by studying brain mechanisms including sensory processes, motor systems, awareness, memory, learning, sleep, arousal and motivation. The role of hormones, biological clocks and drugs as they affect human behavior is stressed. Neural maturation, neural plasticity, the aging process and mental illness are surveyed. Three hours of lecture weekly. Prerequisite: Psychology 1 or consent of instructor.

**174L Methods in Neurobiology (1)**

Human and animal behavior is examined in laboratory utilizing electronic, neuro-biochemical, physiological, histological and behavioral techniques. Content varies. One laboratory weekly. Prerequisites: One year of general chemistry with laboratory; Biology 178 and 178L and Chemistry 130 and 131 are recommended.

**176 Developmental Biology (4)**

The mechanisms underlying the progression of single-celled zygotes to complex multicellular adult organisms will be examined in both plants and animals. Model systems exemplifying the major principles of development will be studied in depth. Three lectures and one laboratory weekly. Prerequisites: Biology 101 and Biology 135.

**178 Animal Physiology (3)**

A detailed comparative examination of life processes in animals. Particular focus will be upon energy utilization, gas transport, kidney function, and muscle function of organisms from diverse habitats. Three hours of lecture weekly.

**178L Animal Physiology Laboratory (1)**

An intensive exploration in a research setting of metabolic pathways, temperature acclimation, gas exchange, and ion regulation in a variety of animals. One laboratory weekly. Concurrent registration in Biology 178 required.

**180 Cell Physiology (3)**

Mechanisms of cell functions are emphasized. Topics covered include: membrane structure; membrane transport; endoplasmic reticulum and Golgi functions; cell motility; energetics; mechanisms of hormone action; cellular immunology; and control of the cell cycle. Three hours of lecture weekly. Prerequisites: Organic chemistry with laboratory, or consent of instructor.

**180L Cell Physiology Laboratory (1)**

The laboratory exercises introduce the student to some of the modern methods used to study cell function. One laboratory weekly. Concurrent registration in Biology 180 is required.

**182 Molecular Biology (4)**

A study of the chemical, physical, and informative properties of the gene. The historical basis of current concepts in molecular biology will be emphasized by examining critical experiments. Topics will include the organization of prokaryotic and eukaryotic genomes as revealed by hybridization kinetics and restriction mapping, the regulatory aspects of transcription and post-transcriptional gene expression, DNA replication and repair, and transposable elements in DNA. Three hours of lecture and one laboratory weekly. Prerequisites: One year of general chemistry with laboratory and at least one semester of organic chemistry with laboratory, Biology 101 and 101L.

**190 Topics in Biology (1-3)**

An in-depth evaluation of selected topics in the biological sciences. Issues of current or historical interest are addressed. May be repeated when topic changes. A total of three units may be applied to the biology major or minor.

**193 Internship in Biology (1-3)**

This course offers experience in the practical and experimental application of biological principles. Students will be involved in research projects conducted by agencies and institutions outside the university, such as state parks, zoos, and biological industries. Enrollment is arranged on an individual basis according to a student's interest and background, and is dependent on positions available and faculty approval. A maximum of three upper division units can be earned toward fulfillment of the requirements of the major.

**197 Senior Seminar (1)**

The techniques of seminar presentation will be studied by preparing and presenting individual seminars on topics of interest. Enrollment for credit is limited to and required of all seniors. Meets one hour weekly. (Every semester)

**198 Techniques in Biology (1-3)**

Training and practice in those areas of biological science of practical importance to the technician, teacher, and researcher. To include, but not be limited to: technical methodology; preparation and technique in the teaching laboratory; and routine tasks supportive to research. Prerequisite: Consent of instructor. Total credit in Biology 198 is normally limited to three units. (Every semester)

**199 Research (1-3)**

Students develop and/or assist in research projects in various fields of biology. The study involves literature searching, on and off campus research, and attendance at seminars at other leading universities and scientific institutions. Prerequisite: Consent of instructor. Total credit in Biology 199 is normally limited to three units. (Every semester)



# Chemistry

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Chemistry is the study of matter and energy and the changes they undergo. It has played a key role in understanding the natural universe and in the scientific and technological revolution that have been so important in shaping modern society.

The USD Chemistry Department is on the approved list of the American Chemical Society (ACS). Students have the opportunity for hands-on experience with state-of-the-art instruments which are used routinely in teaching and research. Special instrumentation includes a Varian Unity 300 MHz Fourier-transform spectrometer, a Nicolet Fourier-transform infrared spectrometer, a Hewlett-Packard mass spectrometer with capillary gas chromatograph and a computerized data system, and a Waters high performance liquid chromatography work station.

The program in chemistry provides a strong foundation in the principles and practices of modern chemistry within the framework of a liberal arts education. The major is designed not only to give students the theoretical basis of the discipline, but also to allow them to test theories in the laboratory.

A major in chemistry prepares a student for many different career possibilities. Professional chemists may select careers in areas such as basic or applied research, production and marketing, consulting, testing and analysis, administration, management, business enterprise, and teaching. They are employed in the chemical, pharmaceutical, petroleum, energy, engineering, and "high technology" industries; by government laboratories and agencies working on health, energy, and environmental standard-setting; in consulting firms; and by education institutions at all levels. Undergraduate training in chemistry provides a solid foundation for many other areas such as medicine, dentistry, veterinary medicine, pharmacy, oceanography, geochemistry, chemical engineering, forensics, environmental studies, molecular biology, and law.

Course offerings are also provided for students with majors other than chemistry. In this category are courses designed to acquaint students not majoring in the natural sciences with the basic principles and methods of modern science and with the history and development of scientific thought.

Two programs of study are available, differing in their focus:

## RECOMMENDED PROGRAMS OF STUDY

The following recommended programs of study are included as **guides only**, and are not to be interpreted in a rigid sense. Flexibility is allowed to meet individual needs. Students are urged to consult with the chemistry advisor early each year to ensure that their needs and interests will be met.

**PLAN A:** Major in *Chemistry* with concentration in *Chemistry*.

### FRESHMAN YEAR

Semester I	Semester II
Chem. 10A	Chem. 10B (3)
Preceptorial (3)	Chem. 11B (1)
Chem. 11A (1)	Mathematics 51 (4)
Mathematics 50* (4)	GE or
GE or	Electives (7-8)
Electives (7-8)	

### SOPHOMORE YEAR

Semester I	Semester II
Chem. 20 (3)	Org. Chem. (4)
Org. Chem. (4)	Chem. 110 (3)
Mathematics 52 (4)	GE or
GE or	Electives (8-9)
Elective (4-5)	

### JUNIOR YEAR

Semester I	Semester II
Chem. 111 (3)	Physics 50 (4)
Chem. 121 (3)	Chem. 125 (3)
GE or	GE or
Electives (9-10)	Electives (8-9)

### SENIOR YEAR

Semester I	Semester II
Chem. 140 (3)	Chem. 195 (1)
Chem. Elective (3)	Chem. 122W (3)
Physics 51 (4)	Chem. Elective (3)
Research (1-2)	Research (1-2)
GE or	GE or
Elective (3-5)	Electives (6-8)

**Plan A:** (Concentration: chemistry) is designed to qualify students for admission to graduate work in chemistry, positions as chemists, or secondary school teaching in chemistry.

**Plan B:** (Concentration: biochemistry) is designed to prepare students for graduate work in biochemistry, molecular biology, pharmacology, pharmaceutical and clinical chemistry; positions as bio-

**PLAN B:** Major in *Chemistry* with concentration in *Biochemistry*.

### FRESHMAN YEAR

Semester I	Semester II
Chem. 10A	Chem. 10B (3)
Preceptorial (3)	Chem. 11B (1)
Chem. 11A (1)	Biol. 20 or 21 (4)
Mathematics 50** (4)	Mathematics 51 (4)
Biol. 20 or 21 (4)	GE or
GE or	Elective (3-4)
Elective (3-4)	

### SOPHOMORE YEAR

Semester I	Semester II
Chem. 20 (3)	Org. Chem. (4)
Org. Chem. (4)	Chem. 110 (3)
Physics 42 (4)	Physics 43 (4)
GE or	GE or
Elective (4-5)	Elective (4-5)

### JUNIOR YEAR

Semester I	Semester II
Chem. 111 (3)	Chem. 132W (3)
Chem. 130 (3)	Chem. 133 (1)
Chem. 131 (1)	Chem. or Biol.
Chem. or Biol.	Elective (3-4)
Elective (3-4)	GE or
GE or	Electives (8-10)
Elective (4-6)	

### SENIOR YEAR

Semester I	Semester II
Chem. 121 (3)	Chem. 195 (1)
Chem. or Biol.	Chem. or Biol.
Elective (3-4)	Elective (3-4)
Research (1-2)	Research (1-2)
GE or	GE or
Electives (6-9)	Electives (8-11)

\*Students deficient in Mathematics may substitute Mathematics 11 for Mathematics 50, followed by Mathematics 50, 51 and 52.

\*\*Students deficient in Mathematics may substitute Mathematics 11 for Mathematics 50, followed by Mathematics 50, 51.

chemists; admission to medical, dental, and pharmacy schools; or secondary teaching.

### Chemistry Major, Plan A:

**Preparation for the Major:** Chemistry 10AB, 11AB, 20; Mathematics 50, 51, 52; Physics 50, 51.

**The Major:** The 24 units of upper division work must include Chemistry 101AB/102AB or 103AB/102AB, 110, 111, 121, 122, and 140. Electives may be chosen from any other



chemistry courses for which prerequisites have been met. Chemistry 199 may not be applied toward the 24 unit requirement. To obtain an ACS-certified bachelor's degree in chemistry, plan A majors must also complete Chemistry 125 and 196.

#### Chemistry Major, Plan B:

**Preparation for the Major:** Chemistry 10AB, 11AB, 20; Mathematics 50; Physics 42, 43 or Physics 50, 51; Biology 20, 21.

**The Major:** The 24 units of upper division work must include Chemistry 101AB/102AB or 103AB/102AB; 110; 111; Chemistry 130, 131, 132, 133. Electives may be chosen from any other chemistry courses for which prerequisites have been met. Chemistry 199 may not be applied toward the 24 unit requirement. Those planning for graduate work should also take Mathematics 51, Chemistry 140, and Biology 101. To obtain an ACS-certified bachelor's degree in chemistry, plan B majors must also complete the following courses: Chemistry 121, 122, 125, 140, and 196.

**Chemistry Minor:** Minimum requirements for a minor in chemistry are: Chemistry 10AB, 11AB and ten units of upper division chemistry including either Chemistry 110 or 130. Students taking the minor to enhance employment possibilities in chemical technology are advised also to take Chemistry 20.

#### Other Programs:

Several professional options are open to the chemistry major in addition to the pursuit of a career in chemistry itself. The Department offers special programs in the following areas (students interested in greater detail should consult the department chair).

- 1. Pre-Medicine/Pre-Dentistry:** The liberal arts curriculum provides an excellent background for graduate education in the health professions. Students planning to apply for admission to medical or dental schools may elect to major in any of the academic disciplines within the College, but in most cases it is advantageous to major in one of the sciences. Chemistry is a particularly desirable choice because, as the molecular science, it is at the focus of current developments in medicine and biomedical technology. Students may select either the plan A or plan B chemistry major. The specific science courses recommended for undergraduates differ for different professional schools, but students electing the plan A major should take Biology 20 and 21 and any additional science courses recommended by the department's pre-medical advisor.
- 2. Marine Science:** Students majoring in Marine Science must also concentrate in another

science. Those with a particular interest in chemical and physical oceanography or biochemical/chemical studies involving marine organisms may wish to select chemistry as that concentration. Students should consult the Marine Science program to determine the requirements for concentration in Chemistry.

## COURSES

### 1 Chemistry and Society (3)

A course designed for the non-science major that focuses on the major ideas of modern chemistry and the role that chemistry plays in a technological society. The evolution of our understanding of atomic and molecular structure and chemical reactivity will be examined as examples of the scientific method and the very human nature of the scientific endeavor. The role of modern chemistry in both the creation and the solution of societal problems will also receive considerable attention. The problems examined, which may vary in different sections, include: the energy crisis, air and water pollution, nutrition and food additives, household chemicals, pesticides and agrochemicals, and nuclear power. Three lectures weekly. (Every semester)

### 1E Chemistry and Society with Laboratory (3)

A course designed for the non-science major that focuses on the major ideas of modern chemistry and the role that chemistry plays in a technological society. The lecture content is similar to that in Chemistry 1 (above); however, this course includes a laboratory that will satisfy the General Education requirement for a laboratory course in the natural sciences. Two lectures and one laboratory/discussion weekly. (Every semester)

### 2 DNA Science and Technology (3)

A course designed for the non-science major that covers the discovery of DNA as the genetic material, the simplicity of the three-dimensional structure of DNA and the many implications to be drawn from this structure. It explores the concepts involved in recombinant DNA technology and its applications to the pharmaceutical industry, agriculture, forensics, gene therapy and AIDS research. Three lectures weekly. Chemistry 1 and 1E are not prerequisites. (Every semester)

### 3 Fundamentals of Chemistry with Laboratory (3)

A course designed for the non-science major that focuses on basic chemical concepts and the promotion of their understanding by primary school children. Topics include the scientific method, physical properties and reactivities of substances, and atomic structure. This course is recommended for the Diversified Liberal Arts Major, but open to other majors for enrollment. Two lectures and one laboratory/discussion weekly. (Every semester)

### 9 Chemistry for Engineers (4)

Open only to engineering students. Major topics to be considered include stoichiometry, atomic and molecular structure, periodicity, acid-base chemistry, redox reactions, chemical and phase equilibria, chemical kinetics. Three lectures and one laboratory weekly. (Spring)

### 10A-10B General Chemistry (3-3)

A two semester lecture course which introduces the fundamental principles of modern chemistry. These principles, which include atomic and molecular structure, periodicity, reactivity, stoichiometry, equilibrium, kinetics, thermodynamics, bonding, acid-base chemistry, redox chemistry, and states of matter, will be used in and expanded upon in more advanced courses. Three lectures weekly. Prerequisite: Mathematics 10 or a passing score on Mathematics Level I Placement Exam. (Every year)

### 10H Honors General Chemistry (3)

An honors course which parallels Chemistry 10B. The topics are covered in greater depth than in Chemistry 10B, and additional material on the applications of Chemistry is included. Three lectures weekly. Prerequisite: Chemistry 10A-11A and consent of instructor. (Spring)

### 11A-11B General Chemistry Laboratory (1-1)

A laboratory course which introduces the concepts and techniques of experimental Chemistry. One laboratory period weekly. Prerequisite: Concurrent registration in Chemistry 10A-10B or consent of instructor. (Every year)

### 12 Solving Chemical Problems with Computers (2)

An introduction to general strategies of solving problems with personal computers. The major emphasis will be on the solution of a wide variety of chemical problems using Macintosh SE computers. Two laboratory periods weekly. Prerequisites: Chemistry 10B (can be taken concurrently) and Mathematics 50. (Spring)

### 20 Analytical Chemistry (4)

An introduction to the principles and practices of analytical chemistry with an emphasis on quantitative methods. Classical methods such as titrimetric and volumetric analyses as well as basic instrumental methods involving spectroscopy, electrochemistry, and chromatography will be performed. Some experiments will be of the project type. One lecture and two laboratory periods weekly. Prerequisites: Chemistry 10A-10B and Chemistry 11A-11B. (Every semester)

### 101A-101B Organic Chemistry (3-3)

A two semester introduction to basic organic chemistry. The relationship of structure and bonding in organic compounds to reactivity will be emphasized. Reactions will be discussed from mechanistic and synthetic perspectives. Three lectures weekly. Prerequisite: Chemistry 10A-10B. (Every year)



**102A-102B Organic Chemistry Laboratory (1-1)**

This course is designed to follow the material presented in Chemistry 101A-101B. Micro scale experimental techniques will be emphasized. Experiments include: recrystallization, distillation, extraction, chromatography, spectroscopy, kinetics, multi-step syntheses, and structure determination. One laboratory period weekly. Prerequisite: Chemistry 11A-11B and concurrent registration in Chemistry 101A-101B or Chemistry 103A-103B.

**103A-103B Honors Organic Chemistry (3-3)**

This is an honors course in organic chemistry which parallels Chem 101A-101B. Lectures cover the structures, properties, and reactions of covalent compounds of the lighter elements, providing greater breadth and depth than in Chemistry 101A-101B. Prerequisite: Chemistry 10AB. (Every year)

**110 Physical Chemistry (3)**

The course focuses on classical principles of physical chemistry, primarily thermodynamics. Three lectures weekly. Prerequisite: Chemistry 10A-10B and Mathematics 50 or consent of the instructor. (Spring)

**111 Physical Chemistry (3)**

This course covers kinetics and modern physical chemistry, including atomic and molecular structure, spectroscopy, and statistical mechanics. Three lectures weekly. Prerequisite: Chemistry 10A-10B and Mathematics 50 or consent of the instructor. (Fall)

**121 Organic/Physical Experimental Chemistry (3)**

An advanced laboratory course with experiments and projects that integrate principles and methods in analytical, organic, and physical chemistry, with considerable emphasis on instrumental methods. One lecture and two laboratory sessions weekly. Prerequisite: Chemistry 20, Chemistry 101AB/102AB or 103AB/102AB, and Chemistry 111 (can be taken concurrently). (Fall, every other year)

**122W Inorganic/Physical Experimental Chemistry (3)**

An advanced laboratory course which integrates techniques and concepts from inorganic and physical chemistry plus, to a lesser extent, analytical chemistry. A wide variety of classical and modern methods of experimental chemistry, including both wet chemical and instrumental methods, will be used in experiments which show the interrelationships between these three areas of chemistry. Also, instruction in the proper methods of recording and reporting chemical experiments and practice in those methods will

be included. One lecture and two laboratory sessions weekly. Prerequisites: Chemistry 20, Chemistry 111, and Chemistry 140. (Spring, every other year)

**125 Instrumental Analysis (3)**

A survey of contemporary methods of microprocessor-controlled instrumentation with emphasis on spectroscopic, electrochemical, and separation techniques. The theory, design, and operation of each instrument covered will be discussed. Experiments utilizing FT-IR, FT-NMR, UV-Visible, GC/MS, HPLC, Polarograph, Cyclic Voltammeter, and other equipment will be performed. Two lectures and two laboratory sessions weekly. Prerequisites: Chemistry 20, Chemistry 102B, and Chemistry 111. (Spring, every other year)

**130 Biochemistry (3)**

The structure, function, and metabolism of biomolecules. Structures and functions of amino acids, proteins, carbohydrates, lipids, nucleotides, and vitamins are covered, as well as enzyme kinetics, thermodynamics, photosynthesis, metabolism, and the regulation of metabolism. Three lectures weekly. Prerequisite: Chemistry 101AB/102AB or 103AB/102AB. (Fall)

**131 Biochemical Methods (1)**

Selected laboratory techniques, utilizing current analytical methods, are used to identify and analyze biomolecules. The experiments include protein purification, enzyme kinetics, chromatography, and electrophoresis. One four hour laboratory each week. Prerequisite: Chemistry 20 and concurrent or previous registration in Chemistry 130. (Fall)

**132W Biosynthesis of Macromolecules (3)**

The biosynthesis of DNA, RNA, and protein are studied, with emphasis on the chemistry and regulation of genes. Recombination, mutations, synthesis of antibodies and viruses, and genetic engineering are covered. This course has a substantial writing component and will satisfy the proficiency requirement in writing. Three lectures weekly. Prerequisite: Organic Chemistry and Chemistry 130 or consent of instructor. (Spring)

**133 Macromolecular Methods (1)**

Selected techniques used to study and analyze macromolecules with emphasis on methods currently used in molecular biology. The experiments include DNA purification and analysis, DNA probes, restriction endonuclease mapping, and transformation. One four-hour laboratory each week. Prerequisite: Chemistry 132 (concurrent). (Spring)

**140 Inorganic Chemistry (3)**

The principles of inorganic chemistry, such as atomic and molecular structure, bonding, acid-base theory, and crystal field theory, are examined. The chemistry of the elements of the periodic table are discussed utilizing these principles. The various fields within inorganic chemistry, including solid-state chemistry, coordination chemistry, and organometallic chemistry are introduced. The kinetics and mechanisms of inorganic reactions are also covered. Three lectures weekly. Prerequisites: Chemistry 101B or 103B and Chemistry 110. (Fall, every other year)

**145 Bio-Inorganic Chemistry (3)**

A survey of the roles of metallobiomolecules in organisms. The functions, structure, and modes of metal coordination of the more significant molecules are examined in detail and compared to model compounds. The standard physical techniques used in studying these complexes are discussed. Particular emphasis is given to the role of the metal ion(s) and how their inorganic properties affect the activity of the biological compound. Three lectures weekly. Prerequisites: Chemistry 101B or 103B. (Fall, every other year)

**150 Chemical Ecology (3)**

A study of the chemical interactions between organisms and their environment. This course is concerned with pheromones and allelochemicals, how they are assayed, purified, isolated, and characterized. Tactical, stereospecific syntheses of these compounds are discussed. Three lectures weekly. Prerequisite: Chemistry 101B or 103B. (May not be offered every year)

**155 Organometallic Chemistry (3)**

An introduction to basic organometallic chemistry with an emphasis on transition metal complexes. The synthesis, structures, and bonding properties of various classes of compounds are examined. The major types of reactivity patterns and reaction mechanisms are discussed. The catalytic properties and industrial applications of important organometallic complexes are highlighted. Three lectures weekly. (May not be offered every year)

**160 Physical Organic Chemistry (3)**

Applications of modern theoretical concepts to the chemical and physical properties of organic compounds. Among the topics covered are: linear free energy relationships, acidity functions, mechanisms of nucleophilic and electrophilic substitutions, additions and eliminations, radical reactions and pericyclic reactions. Three lectures weekly. Prerequisite: Chemistry 101B or 103B and 111. (May not be offered every year)



**170 Membrane Chemistry (3)**

A study of the chemistry and physical processes associated with the formation and function of semipermeable membranes. The course will include both synthetic and naturally occurring membranes. Three lectures weekly. Prerequisites: Chemistry 101AB or 103AB and Chemistry 110. (May not be offered every year)

**180 NMR Methods (3)**

An introduction to concepts and methods in nuclear magnetic resonance (NMR) spectroscopy. Theory of NMR will be developed and applied to the design of one-dimensional and two-dimensional experimental pulse sequences. The laboratory will emphasize instrumental operation, data acquisition and processing, and practical application of NMR methods to scientific problems. Two lectures and two three-hour laboratory periods weekly. Prerequisites: Mathematics 50, Chemistry 101A, 102A. (May not be offered every year)

**194 Special Topics in Chemistry (1-4)**

From time to time, courses will be given on special topics in chemistry based primarily upon the interests of faculty. Possible topics include photochemistry, polymers, enzyme-catalyzed reactions, and environmental chemistry. May be repeated for credit when the topic changes. Prerequisite: Consent of instructor. (May not be offered every year)

**195 Seminar (1)**

A study of the preparation and presentation of formal seminars in chemistry. Each student will give a seminar on a topic of interest. One hour each week. May be repeated once. (Every year)

**196 Methods of Chemical Research (3)**

Introduction to the principles and methods of chemical research. The major activity is a research project requiring eight hours of laboratory work per week. Lab work includes general and advanced techniques with considerable hands-on use of modern instruments and consideration of laboratory safety. Information retrieval including both library work and on-line searches of chemical data bases are included. Students will produce a final written report when the project is completed. Prerequisite: Consent of instructor. (Spring)

**199 Undergraduate Research (1-3)**

A research problem in experimental or theoretical chemistry under the supervision of an individual faculty member. Projects involve literature searching, on- and off-campus research, and oral and written reports. The course is taught on a pass/fail basis only. Prerequisite: Consent of instructor. (Every year)



## Communication Studies

Linda A. M. Perry, Ph.D., Chair  
Bethami Dobkin, Ph.D.  
Venita A. Kelley, M.A.  
Carole E. Logan, Ph.D.  
Roger C. Pace, Ph.D.  
David Sullivan, M.A.  
Larry A. Williamson, Ph.D.

The Communication Studies program offers two approaches to the study of communication: Speech Communication and Mass Media Studies. Students pursuing a bachelor's degree in Communication Studies will select one of the two approaches as their emphasis within the major. In the Speech Communication emphasis, instruction focuses on interpersonal, small group, organizational, and public communication. In the Mass Media emphasis, instruction focuses on the ethics, history, theory, and criticism of mass communication. Both areas of emphasis provide students with the kinds of skills and background necessary to work in a communication-related profession or pursue advanced study in the field of communication.

All students in the Communication Studies major must complete 36 units of course work in the major including 12 lower division and 24 upper division units as described below. In addition, all Communication Studies majors must select and complete an enhanced minor in another academic field of their choice. An enhanced minor consists of at least 24 units of study. Six units within the enhanced minor should be upper division units not already included in the existing departmental minor requirements.

**Required Lower Division Core:** (12 units)  
Communication Studies 1, 3, 20, 30.

**Required Upper Division Core:** (15 units)  
Speech Communication Emphasis:  
Communication Studies 100, 120 or 150,  
125, 165, 170.

**Mass Media Emphasis:** Communication Studies 100, 130, 136, 165, Philosophy 137.

**Upper Division Electives (either emphasis):** nine units to be selected in consultation with an advisor from among the upper division offerings in Communication Studies.

**The Minors:** Students may pursue a minor in either area of emphasis:

**Speech Communication:** Communication Studies 1, 3 and 12 units to be selected from 100, 120, 125, 140, 145, 150, 155, 162, 170, 175, 194, 198 or 199.

**Mass Media:** Communication Studies 1, 20 or 30, and 12 units to be selected from: 100, 102 or 103, 121, 130, 135, 136, 140, 160, 194, 198 or 199. Philosophy 137, History 168.

## COURSES

**1 Introduction to Human Communication (3)**

An examination of the principles and contexts of human communication. Some of the principles surveyed are perception, listening, nonverbal communication, and persuasion. The primary contexts examined include interpersonal, group, organizational, and public communication. This course is a prerequisite for all upper division communication studies courses, and fulfills a General Education requirement in the social sciences.

**3 Public Speaking (3)**

An introduction to several forms of public communication. Emphasis is placed on the development and practice of public speaking about salient political, cultural, and social issues. Students are taught an audience-sensitive approach to the invention, arrangement and delivery of public messages. Communication Studies 1 is a recommended prerequisite. Fulfills a General Education requirement in the social sciences.

**20 Introduction to Journalism (3)**

A general introduction to newspaper production. Students are exposed to methods of news gathering, reporting, writing, and editing. The elements of the news story, interviewing, and the news conference are among the topics covered. This course is a prerequisite for working on the student newspaper, the Vista.



## RECOMMENDED PROGRAM OF STUDY

## FRESHMAN YEAR

Semester I	Semester II
Preceptorial	Comm. 1 or 3 (3)
Logic or English 21	Comm. 20 or 30 (3)
Comm. 1 or 3 (3)	Foreign Language
GE (6)	GE (6)

## SOPHOMORE YEAR

Semester I	Semester II
Comm. 20 or 30 (3)	Comm. 100 (must be completed by the end of the first semester of the junior year)
Foreign Language	Comm. UD (3)
GE (6)	GE, Minor (6)
Minor (3)	Foreign Language

## JUNIOR YEAR

Semester I	Semester II
Comm. UD (3-6)	Comm. UD (3-6)
Minor (3-6)	Minor (3-6)
GE or Electives (3-6)	GE or Electives (3-6)

## SENIOR YEAR

Semester I	Semester II
Comm. UD (3-9)	Comm. UD (3-9)
Minor (3-6)	Minor UD (3-6)
Electives UD (3-9)	Electives UD (3-9)

**Note:** In order to complete the requirements for the B. A. in Communication Studies within four years, students should: 1) complete all the General Education requirements by the second semester of their junior year; 2) begin work on the foreign language requirement by the second semester of their freshman year; and 3) begin work on an enhanced minor in their sophomore year.

## 30 Introduction to Mass Media (3)

An introduction to mass media and its theoretical underpinnings. This course covers the origins, history, and development of mass media. Additionally, the present structure, characteristics, and problems in the areas of radio, television, and cable are addressed.

## 100 Human Communication Theory (3)

A survey of human communication theory and practices. Students are introduced to a variety of theoretical approaches to the study of communication including mechanistic, psychological, interactive, pragmatic, and rhetorical perspectives. Prerequisite: Communication Studies 1.

## 102 Film Study I (3)

An inquiry into the history of film as seen in

the work of such masters as Griffith, Chaplin, Murnau, Von Sternberg, Vigo, Renoir. Prerequisite: Communication Studies 1. (Every Fall)

## 103 Film Study II (3)

A study of the art of film; a close examination of films by such modern masters as Bunuel, Bergman, Kurosawa, Ray, Truffaut, and Bertolucci. Prerequisite: Communication Studies 1. (Every Spring)

## 120 Organizational Communication (3)

The study of the organization as a communication system; emphasis is placed on the application of traditional and contemporary social scientific theories of communication to the complex organizational setting. The role of organizations in persuasive campaigns and the communication techniques, strategies, and problems specific to complex organizations settings will be considered. Prerequisite: Communication Studies 1.

## 121 Advanced Journalism (3)

This course combines instruction in contemporary theories about press performance with advanced newsroom skills. The course introduces students to the organizational norms that drive journalistic styles, press ethics, newsroom management, and various advanced reporting and copy editing skills (extended news feature stories, story assignments, photojournalism, page design, section layout and editing.) Prerequisite: Communication Studies 20.

## 125 Interpersonal Communication (3)

An examination of the dynamics of one-to-one communication. Various humanistic and social scientific perspectives are explored. Emphasis is placed on the individual as an active participant/consumer in interpersonal communication settings. Prerequisite: Communication Studies 1.

## 130 Theories of Mass Communication (3)

An examination of the various functions or roles which the mass media perform for individuals and society. Specific topics include: the influence that economic, political, and aesthetic forces have on media programming; the structure and functions of media organizations; and theories and studies of media effects. The development of informed, critical consumption of mass media messages is emphasized. Prerequisite: Communication Studies 1; Communication Studies 30 is recommended.

## 135 Principles of Broadcast Communication (3)

This course introduces students to basic production skills while incorporating discussions of aesthetics, film theory, and ethics. Writing skills such as scripting and broadcast news writing are included. Students are introduced to three phases of broadcast production: writing and planning (newsgathering, scripting, editing), audio (actualities, sound effects, music), and visual production

(composition, lighting, editing). By the end of the course students will produce a short video and/or audio presentation. Prerequisites: Communication Studies 20 and 30, or permission of instructor.

## 136 Media Criticism (3)

An examination of the rhetorical dimensions of mass media in which media messages are treated as texts. Students are exposed to use of critical methodologies such as structuralism, narrative analysis, genre criticism, ideological criticism and semiotics. This course emphasizes the importance of the symbolic qualities of mediated messages.

## 137 Mass Media Ethics (3)

An examination of the responsibility of citizens, consumers, corporations, advertisers, artists and performers, and federal or local government toward mass media. Some of the issues examined will include: Do mass media influence human contact for better or worse? Does regulation of, for example, pornography or propaganda conflict with first Amendment rights? Are news and commercial media politically biased? Do educational media enhance or undermine traditional teaching methods? Lecture, discussion, group activities, analysis or media presentations. Cross-listed as Philosophy 137.

## 140 Symbolic Processes (3)

A comparison and contrast of various perspectives of human symbol use. Several perspectives will be examined: general semantics, linguistics, semiotics, and dramatism. Prerequisite: Communication Studies 1.

## 145 Gender Communication (3)

An overview of the relevant research on gender issues. Communicator styles of women and men are discussed. Attitudes and beliefs concerning female and male cultural stereotypes as they are manifested through communication are investigated. Prerequisite: Communication Studies 1.

## 150 Theories of Small Group Communication (3)

An examination of theories and principles of group communication. Students study interactional and attitudinal variables which influence the nature of group communication. Topics include group norms and roles, leadership, motivation, coalition formation, communication networks, and persuasion. Prerequisite: Communication Studies 1.

## 155 Interviewing: Principles and Practices (3)

An examination of the methods and techniques applicable to a variety of purposeful dyadic interactions. Students prepare, participate in and critique employment, survey, journalistic, and other types of interviews. Emphasis is placed on the student's roles as both interviewer and interviewee. Prerequisite: Communication Studies 1.



**160 Theories of Persuasion (3)**

An examination of the various forms of interpersonal, public, and mass persuasion messages that we consume daily. Students are exposed to rhetorical and behavioral theories of persuasion. Emphasis is placed on the nature, creation, and critique of human persuasion. Prerequisite: Communication Studies 1.

**162 Political Communication (3)**

A survey of the centrality of communication processes in substantive areas of political activity. Areas of study include political speeches, election campaigns, debates, government and media relations, advertising and propaganda, and political movements. Special emphasis is placed on the relationship between public opinion and the use of rhetorical strategies, imagery and symbolism.

**165 Communication Research Methods (3)**

An overview of communication research methodologies. Students are exposed to the prevailing paradigms of qualitative and quantitative research. The descriptive and explanatory values of historical, statistical, and survey methodologies will be examined. Prerequisite: Communication Studies 1.

**168 History of the Mass Media in the United States (3)**

A survey of the origins and development of the mass media in the United States from the colonial newspaper to modern television. Cross-listed as History 168.

**170W Rhetorical Theory (3)**

An examination of rhetorical thinking from its birth in Athens to the present time. Beyond an examination of basic rhetorical principals and tenets, students explore issues such as rhetoric as a humane discipline; the place of rhetoric in democracies; and the worth of rhetoric as a means of inducing change. Prerequisite: Communication Studies 1.

**175 Intercultural Communication (3)**

This course introduces students to, and familiarizes them with, current theories about and research on intercultural communication. This course also provides students with critical thinking skills in regard to intercultural interaction and communication styles.

**193 Human Communication Processes (3)**

A survey of communication process (hearing, speech and language) and of development and disorders in auditory, central or expressive processes. For the classroom teacher or teacher of the handicapped. Does not fulfill a requirement within the Communication Studies major and does not fulfill a GE requirement.

**194 Special Topics in Communication Studies (3)**

Selected topics in either Speech Communication or Mass Media Studies will be examined.

**198 Communication Internship (2-3)**

An experiential education course in which students participate as interns in either radio or television, public relations, advertising, or some facet of organizational communication. Open only to Communication Studies majors or minors of second semester junior status or higher. No more than three internship units may be applied toward the major or minor. Students should consult with the Communication Studies Intern Coordinator for details on enrollment and qualification.

**199 Independent Study (1-3)**

By consent of instructor

# Computer Science

Virginia Stover, Ph.D., Program Director

Dwight R. Bean, Ph.D.

Robert R. Corbeil, Ph.D.

William E. deMalignon, M.A., M.S.

John Glick, Ph.D.

Stanley J. Gurak, Ph.D.

Stacy Langton, Ph.D.

Luby Liao, Ph.D.

Jack W. Pope, Ph.D.

Lukasz Pruski, Ph.D.

Ray H. White, Ph.D.

Computer Science is the system of principles and theory which deals with what computers do. It studies the nature of computation. For any given problem, it asks whether the answer can be computed, and, if so, what are the most efficient and practical ways to do the computation. (Often the methods that are best for machines are quite different from those that are practical for human beings.)

Computers are machines which manipulate abstract symbols according to specified rules. Therefore, Computer Science relies heavily on abstract reasoning and mathematics. The mathematics involved is usually quite different, however, from traditional mathematics. Much of it has been developed recently in response to the development of computers.

As an academic discipline within the liberal arts tradition, Computer Science has ties with many other disciplines. The natural sciences provide the physical principles upon which computers are built. Computer Science serves the sciences, engineering and business in providing the means to perform complex calculations and to analyze large amounts of data. Psychology and philosophy share with Computer Science the desire to understand the nature of reason, language, and intelligence.

The most important skills needed by a prospective computer scientist are an excellent

command of one's native language, and the ability to think in a mathematical way.

**Note:** One of the modern structured high-level programming languages like Pascal, C, or C++ is used in the introductory programming courses, and many of the upper division computer science courses assume a knowledge of one of these languages. Therefore, a knowledge of BASIC, FORTRAN, or COBOL is not a substitute for Computer Science 50 or 51.

**The Major:**

1. Lower division preparation for the major.
  - Computer Science 50 — Computer Programming I (3)
  - Computer Science 51 — Computer Programming II (3)
  - Computer Science 52 — Computer Programming III (3)
  - Computer Science 80 — Introduction to Assembly Language (3)
  - Mathematics 40 — Logic for Mathematics and Computer Science (3)
  - Mathematics 50 — Calculus I (4)
  - Mathematics 51 — Calculus II (4)

**Note:** Mathematics 40 satisfies the General Education logic competency requirement.

**2. Upper division (25 units)****a. Required courses:**

- Computer Science 100 — Principles of Digital Hardware (4)
- Computer Science 110 — Operating Systems (3)
- Computer Science 130 — Data Structures and Algorithms (3)
- Computer Science 160 — Principles of Programming Languages (3)
- Computer Science 170 — Automata, Computability, and Formal Languages (3)

It is highly recommended that students take Data Structures and Algorithms soon after completing Computer Science 52.

**b. Nine upper division elective units chosen from:**

- Computer Science 115 — Systems Programming (3)
- Computer Science 120 — Electronics (4)
- Computer Science 131 — Numerical Analysis (3)
- Computer Science 145 — Database Management Systems Design (3)
- Computer Science 150 — Computer Graphics (3)
- Computer Science 155 — Digital Modeling and Simulation (3)
- Computer Science 165W — Software Engineering (3)
- Computer Science 180 — Algorithms (3)
- Computer Science 194 — Special Topics (3)
- Computer Science 199 — Independent Study (1-3)



**RECOMMENDED PROGRAM OF STUDY****FRESHMAN YEAR**

Semester I	Semester II
Computer Science 50 (3)	Computer Science 51 (3)
Mathematics 50 (4)	Mathematics 51 (4)
GE courses (9)	Mathematics 40 (3)
	GE courses (6)

**SOPHOMORE YEAR**

Semester I	Semester II
Computer Science 52 (3)	Computer Science 130 (3)
Computer Science 80 (3)	GE courses (12)
	GE courses (9)

**JUNIOR YEAR**

Semester I	Semester II
Computer Science 100 (4)	Computer Science 110 (3)
GE or Electives (12-15)	Computer Science UD Elective (3-4)
	GE or Electives (9-12)

**SENIOR YEAR**

Semester I	Semester II
Computer Science 160 (3)	Computer Science UD Elective (3-4)
Computer Science 170 (3)	UD Electives (12-15)
Computer Science UD Elective (3-4)	
UD Electives (6-9)	

c. It is highly recommended that Computer Science majors pursue a minor in a related field such as Mathematics, Physics, Engineering, or Business Administration.

d. It is also recommended that Computer Science majors take Mathematics 134-Combinatorics, for additional background in mathematics.

**The Minors:** Students wishing to major in another field while also developing competency in the use of computers are encouraged to choose one of the minors described below. In order to meet the special needs of students, the University offers two different minors, one in Computer Science and the other in Information Science.

**The Minor in Computer Science:**

The Computer Science minor is intended

for students who have a general interest in the workings and uses of computers.

Minimum requirements for the minor in Computer Science are:

- Computer Science 50
- Computer Science 51
- Computer Science 52
- Nine additional units, at least six of which are in upper division courses (Computer Science 100 or above), excluding Computer Science 197.

**Note:** Neither Computer Science 6 nor Computer Science 197 may be applied toward the requirements for the minor in Computer Science.

**The Minor in Information Science:**

The Information Science minor is intended for students who have a special interest in the analysis, design, implementation and use of computer-based information systems and organizations.

Minimum requirements for the minor in Information Science are:

- Computer Science 50
- Computer Science 51
- Computer Science 52
- Nine additional units, at least six of which are in upper division courses chosen from:
  - The Computer Science offerings listed in this *Bulletin*, excluding Computer Science 6 and Computer Science 197. Computer Science 130 and 145 are highly recommended; and
  - Business Administration 185 - Management Information Systems.

**LOWER DIVISION COURSES****6 Introductory Computer Programming (3)**

An elementary introduction to computer programming and applications for non-majors and non-minors. Computer organization; problem solving; algorithms; structured programming in a simple computer language; computer applications; and current issues and trends in computer science. This course does not satisfy any of the requirements for the Computer Science major or minor and is not a substitute for Computer Science 50.

**50 Computer Programming I (3)**

Algorithms and programming in a structured language; variables, expressions, statements; simple data types; sequence, decision, iteration; functions and procedures; input and output; sequential files; one-dimensional arrays; loop invariants; syntax analysis; and program design, documentation, and debugging. Prerequisite: Mathematics 11 or equivalent. Computer Science 6 is not a prerequisite.

**51 Computer Programming II (3)**

Continuation of Computer Science 50: floating point issues; two-dimensional arrays; records; linked lists, stacks, and queues; recursion;

introduction to abstract data types, object-oriented programming, and algorithm analysis; elementary sorting and searching. Prerequisite: Computer Science 50 or equivalent.

**52 Computer Programming III (3)**

Continuation of Computer Science 51: trees; pseudo-random numbers; hashing; sequential file update; external merging; abstract data types and object-oriented programming; analysis of algorithms; and additional sorting and searching techniques. Prerequisite: Computer Science 51 or equivalent.

**60 Programming Languages (1-3)**

Introduction to a particular high-level programming language such as, Ada, C, COBOL, Lisp, or Prolog. Programming assignments appropriate to the language studied. Prerequisite: Computer Science 50 or equivalent. This course does not satisfy any of the requirements for the major in Computer Science.

**80 Introduction to Assembly Language (3)**

Machine structure; machine language; assembly language instructions and addressing modes; data representations; subroutines; macros; traps and interrupts; and input and output. Prerequisite: Computer Science 51. (Every Fall)

**UPPER DIVISION COURSES****100 Principles of Digital Hardware (4)**

Combinational and sequential logic, registers, arithmetic units. Introduction to computer architecture. Three lectures and one laboratory per week. Prerequisites: Computer Science 51 and Mathematics 40 or consent of instructor. (Spring, 1995; Fall, 1996)

**110 Operating Systems (3)**

Principles of computer operating systems; process management; memory management; file systems; protection; deadlock. Concurrent programming. Prerequisites: Computer Science 52, 80, and 100, or equivalent courses. (Fall, 1995; Spring, 1997)

**115 Systems Programming (3)**

I/O structure and programming; device drivers; structure of execution modules, linkers; reentrant code; operating systems requirements; and case studies. Prerequisites: Computer Science 52 and 80. (Spring, 1998)

**120 Electronics (4)**

Development of the principles of direct current and alternating current circuits. Electrical measurement techniques; electronics with discrete components active and passive; power supplies and the principles of amplifiers. Three lectures and one laboratory per week. Prerequisites: Physics 50 and concurrent registration in Physics 51, Mathematics 14 or 50. Cross-listed as Physics 120.



**130 Data Structures and Algorithms (3)**

Data structures and their application in programming; sets, trees, B-trees, graphs; abstract data-types and object-oriented programming; memory management and garbage collection. Prerequisites: Computer Science 52 and Mathematics 40, or equivalent courses. (Every Spring)

**131 Numerical Analysis (3)**

Approximate computations and round-off errors; Taylor expansions; numerical solution of equations and systems of equations; systems of linear equations; numerical integration; numerical solution of differential equations; interpolation; and problem solving on the computer. Prerequisites: Mathematics 51 and Computer Science 50. Cross-listed as Mathematics 131. (Fall, 1995; Spring, 1997)

**145 Database Management Systems Design (3)**

Introduction to database concepts; data models; query facilities; and file organization and security. Prerequisite: Computer Science 130. (Fall, even years)

**150 Computer Graphics (3)**

The development of high-level, device-independent graphics routines; basic line drawing algorithms, text design, and other graphics primitives; 2-D representations of coordinate systems, image segmentation, and windowing.

Prerequisites: Computer Science 130 and Mathematics 50. (Fall, odd years)

**155 Digital Modeling and Simulation (3)**

Mathematical modeling; probabilistic and deterministic simulations; pseudo-random number generators; event generators; queuing theory; game theory; and continuous models involving ordinary and partial differential equations. Prerequisites: Computer Science 52 and Mathematics 51. (Spring, even years)

**160 Principles of Programming Languages (3)**

The organization of programming languages with emphasis on language semantics; language definition, data types, and control structures of various languages. Prerequisite: Computer Science 52; Computer Science 80 is recommended. (Fall, 1994; Spring, 1996)

**165W Software Engineering (3)**

Theoretical and practical aspects of software development; project planning; requirements and specification; general and detailed design; implementation; validation and verification; formal documentation. Students will participate in a team software project. Prerequisite: Computer Science 130. (Spring, 1995; Fall, 1996)

**170 Automata, Computability, and Formal Languages (3)**

Finite state machines; formal grammars;

computability and Turing machines. Prerequisites: Computer Science 130, or upper division mathematics course. (Fall, 1994; Spring, 1996)

**180 Algorithms (3)**

Advanced theory of algorithms. Topics may include: algorithm analysis; algorithm design techniques; and computational complexity. Prerequisites: Computer Science 130 and Mathematics 51. (Spring, odd years)

**194 Special Topics (3)**

Topics of special interest chosen by the instructor. Prerequisites: Computer Science 52 and consent of the instructor. Computer Science 194 may be repeated for credit with a different topic.

**197 Internship (1-3)**

Practical experience in the application of the principles of computer science. Students will be involved in a software or hardware project. Enrollment is arranged on an individual basis according to the student's interest and background and the availability of positions. A written report is required. Units may not normally be applied toward the major or minor in computer science. Computer Science 197 may be repeated for a total of 3 units.

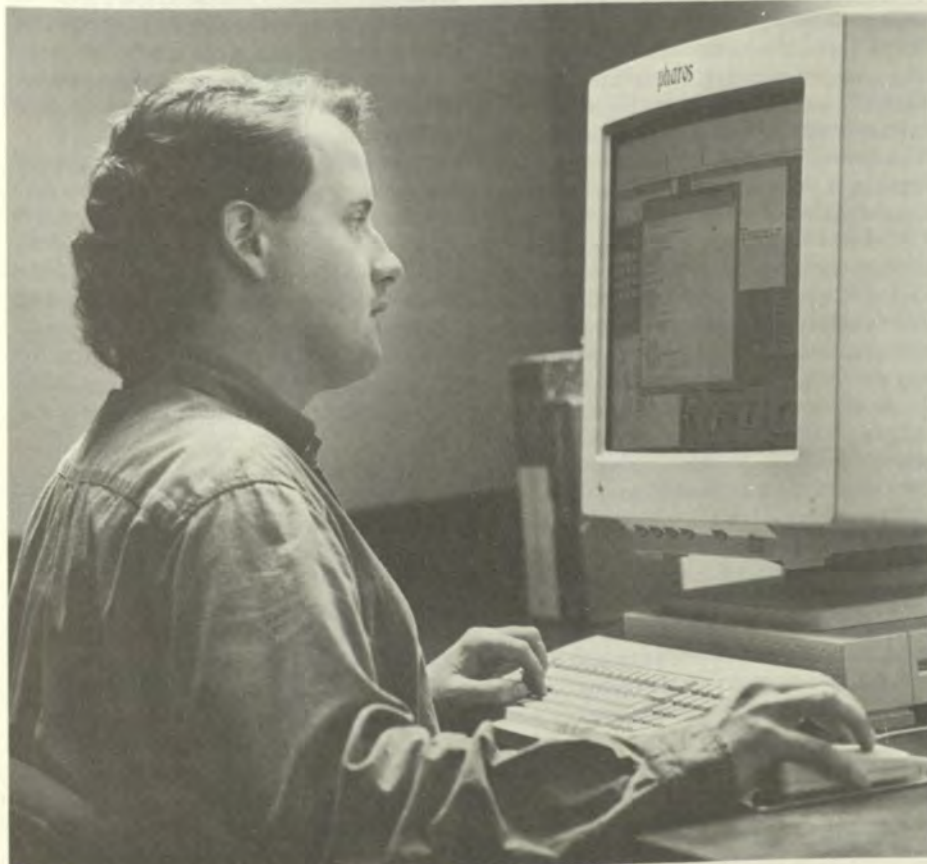
**199 Independent Study (1-3)**

Individual study including library or laboratory research or program writing. A written report is required. Prerequisites: Computer Science 51 and consent of instructor. Computer Science 199 may be repeated for a total of 3 units.

## Diversified Liberal Arts

The Diversified Liberal Arts (DLA) major is designed for students interested in obtaining the Multiple Subjects Credential for teaching at the elementary level in California. This major is open only to those students intending to pursue the multiple subjects credential. The DLA is offered by the College of Arts and Sciences, but is administered by the School of Education. A complete description of the major requirements may be found in the School of Education section in this *Bulletin*.

Students who are interested in a broadly-based humanities program of study may wish to consider the Interdisciplinary Humanities major listed in this section of the *Bulletin*. The Interdisciplinary Humanities major will not satisfy requirements for the Multiple Subjects Credential.





# Engineering

Thomas A. Kanneman, Ph.D.,  
Chair, Department of Engineering and  
Physics; Director, Engineering Programs  
Ernest M. Kim, Ph.D.  
Kathleen A. Kramer, Ph.D.  
Robert L. Mertz, Ph.D.  
Michael S. Morse, Ph.D.  
Thomas F. Schubert, Jr., Ph.D., P.E.

## ENGINEERING ADVISORY BOARD

The USD Electrical Engineering Industry Advisory Board was formed in the Fall of 1986 to assist USD in developing the curriculum and other resources of the program. That board has drawn participants from the USD Corporate Associates, the American Electronics Association, and other organizations.

The Engineering Advisory Board was organized in Fall, 1993 to expand the level and role of industry affiliates in the following areas: 1) long-range planning for the continued development of engineering at USD (proposed and continuing programs); 2) development and promotion of cooperative programs and relations with industry and the San Diego community; 3) assisting in seeking sources of support for engineering and science programs and facilities; 4) facilitating recruitment and placement of engineering and science graduates; and 5) advising the director of engineering programs, the engineering faculty, and the administration at USD on engineering and related programs, curricula, and opportunities for professional development and activities.

## ADVISEMENT

Engineering is a dynamic and challenging field which offers a wide range of opportunities, activities, and rewards for a productive lifelong career in the service of humankind. The goal of the Engineering program at USD is to develop and nurture in each graduate the ability to apply pertinent knowledge to the practice of engineering in an effective and professional manner. However, the program is intensive and requires an early commitment to the underlying math, and science foundations upon which the subsequent content in engineering science and design is built and extended.

All students who succeed in the program typically finish the standard nine semester program in nine to ten semesters. Students who wish to graduate with the minimum program requirements should consult an Engineering advisor prior to final course selection and enrollment. In particular, it is important that freshmen students with a potential interest in engineering enroll in the Engineering 5 Preceptorial during their first semester of enrollment. (See the standard course pattern which follows below.)

The selection of a specific branch of engi-

neering (for example, civil, chemical, electrical, mechanical), or to pursue some other field of science, business, etc., can be made anytime during the second year. However, one cannot start engineering during the second year without equivalent preparation or an equivalent extension of the program of study.

## PRE-ENGINEERING PROGRAM

Mathematics, basic science and engineering (ENGR) coursework, along with selected General Education coursework, are available as a preparation for a number of fields in engineering. Generally, the mathematics, science and engineering courses required for the first two to three years of the Electrical Engineering (EE) program, which follows, will form the basis for transfer programs for EE and for other engineering fields.

Students who wish to pursue a transfer program in EE or in other engineering or related disciplines should consult the director of engineering programs for a recommended transfer pattern of study.

## ELECTRICAL ENGINEERING (DUAL B.S./B.A. DEGREE PROGRAM)

[A professional program accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET)]

The Electrical Engineering program is built upon a foundation in mathematics, physics, computers and chemistry, as well as a strong general education component. In addition to a sound preparation in engineering with an emphasis in electrical/electronics engineering science and design and professional practice, additional preparation and integration is devoted to written and oral communication, human values and relations, and engineering ethics, as well as to economic, social, legal, safety and engineering management considerations in engineering practice.

The electronics engineering specialty emphasis includes computer-aided engineering, electronic circuits, devices and systems, digital systems logic design, electronic communications, control systems, signal processing, instrumentation and testing. Special emphasis is placed on the use of the computer as an engineering tool, and as an integral component in modern engineering products and systems. Modern laboratory instruction supports and complements theory and practice components of the curriculum to ensure that the graduate will be prepared to meet the challenges of entry to professional practice at the bachelor's level. The Electrical Engineering (EE) program moved into new facilities in Loma Hall in the summer of 1992. The program has three well-equipped computer-based modern engineering laboratories (with future provisions for a fourth laboratory).

The EE curriculum has been designed in accordance with the Criteria for Accrediting Programs in Engineering in the United States, as published by the Accreditation Board for

Engineering and Technology (ABET). Engineering faculty are selected with emphasis on qualifications needed to support the goals of professional accreditation and a professional practice oriented engineering program. USD is committed to maintaining professional accreditation based on the EAC/ABET general and program accreditation criteria.

In order to meet the traditions of USD for quality undergraduate education, the curriculum requirements for professional accreditation, and the ever-increasing demands by industry for a more broadly educated engineer capable of meeting the future demands and challenges of changing technology in a global economy and society, the USD program is structured as a nine semester integrated program of study. The nine semester program allows for more effective structuring and sequencing of critical foundations in the natural sciences, as well as providing the opportunity for additional depth in the area of electronics engineering design and practice.

The design content in the program is integrated throughout the curriculum. Basic design concepts are introduced during the first two years, and expanded in various courses throughout the following five semesters in the upper division work. A capstone design sequence is required in the final two semesters (ENGR 191, EEE 192) which culminates in a senior design project based on prior preparation, and includes both technical and non-technical considerations.

Computer-based experience including programming, computation, simulation, computer-based evaluation and design, is integrated throughout the curriculum. Basic preparation and experience is provided in the first two years and continued with increased levels of preparation and application integrated throughout the upper division work.

In addition, the nine semester structure provides for the opportunity for two upper division level summer internship/co-operative experiences under a formal program in cooperation with local and national engineering firms, thus providing for valuable practical engineering experience, as well as potential contacts for career opportunities upon graduation. Scholarships and financial aid programs will be available for the full nine to ten semester program.

## Recommended Prior Preparation

The Electrical Engineering program at USD assumes the following preparation prior to beginning the program, given in terms of USD courses. Secondary preparation may be used to meet these requirements, subject to applicable placement exams or evaluation by the offering department.

1. College algebra, and plane trigonometry [USD Mathematics 11 (3); Mathematics 12 (1)]. Typically this requires 3.5 high school units in mathematics, including two units of algebra, one unit of geometry, 0.5 units of plane trigonometry, plus college level algebra. Analytical geometry



and introduction to calculus are also recommended.

2. Introduction to chemistry [USD Chemistry 10A] (3) or one unit (year) of high school general chemistry.

3. Basic college level composition [USD English 1 (3)] (or typically, four units of high school English).

4. College level 2nd semester proficiency in a foreign language [USD Foreign Language 1 (3) and 2 (3)] (or typically three to four units of high school foreign language).

If the student has no prior credit for plane trigonometry, USD Mathematics 12 (1) must be taken prior to or concurrent with USD Mathematics 50 Calculus I. Chemistry 10/11AB (8) may be substituted for Chemistry 9 (4). If the student does not have one unit of high school physics, it is highly recommended that Mathematics 12 and 50 be taken prior to taking USD Physics 50. One unit of high school biology is also recommended. In addition, since engineering involves considerable computer work, a high school course in touch typing is highly recommended.

Deficiencies in any of the above areas may be removed at USD, but the credit earned may not be applied toward minimum graduation requirements for the Electrical Engineering major.

Students considering the Electrical Engineering major should consult with an Electrical Engineering advisor for evaluation of their background preparation. While there are presently no special admission requirements to the USD Electrical Engineering program, a typical, successful major in this area will meet at least one of the following criteria:

1. Ranked in the upper one fourth of the high school graduating class. This assumes that the secondary program meets most of the subject area preparation identified above; or
2. Minimum 3.0 (on a 4.0 scale) GPA based on college preparatory subjects; or
3. Minimum score of 23 on ACT or 1050 on SAT, including ACT mathematics of 18 or SAT mathematics of 500, and ACT English of 19 or SAT verbal of 450 minimum.

Transfer students must have a minimum of 2.75 GPA (3.0 minimum recommended) in college level coursework related to USD Electrical Engineering requirements.

#### **Advanced Placement (AP) Credit and Placement Exams for Mathematics/Science (Applies to Engineering Majors Only)**

The Mathematics Proficiency Exam (Mathematics 11) and the Calculus Readiness Exam must be taken and passed to proceed to Mathematics 50. In addition, if proficiency in plane trigonometry has not been demonstrated, Mathematics 12 (1) must be taken prior to or concurrent with Mathematics 50.

**Credit for Mathematics 50-Calculus I (4):** An Advanced Placement Mathematics BC score of 4 or 5 is required, and a passing grade on the Calculus Readiness Examination; or a C or better grade in an equivalent college transfer course.

**Credit for Mathematics 51-Calculus II (4):** An Advanced Placement Math BC score of 4 or 5 is required and an above average score on the calculus readiness test; or a C or better grade in an equivalent college transfer course.

**Credit for Mathematics 52-Calculus III (4):** Requires a C or better grade in an equivalent college transfer course.

**Credit for Chemistry:** An Advanced Placement score of 3, 4 or 5 in the appropriate level subject is required to receive credit for Chemistry 10A, or Chemistry 10A, 11A. An Advanced Placement score of 4 or 5 in the appropriate level subject is required to receive credit for Chemistry 10B, 11B. Advanced Placement credit is not accepted for Chemistry 9 except by substitution by Chemistry 10AB, 11AB Advanced Placement credit as described above; or a grade of C or better in an equivalent college transfer course.

**Credit for Physics:** An Advanced Placement Physics C score of 4 or 5 is required to receive credit for Physics 50; an Advanced Placement Physics C score of 4 or 5 is required to receive credit for Physics 51; Advanced Placement credit is not given for Physics 52. Credit is given for a grade of C or better in an equivalent college transfer course.

#### **Special Restrictions on the Use of the Pass/Fail Option**

For the EE major, pass/fail is not permitted in any course specifically required by course prefix and title (that is Mathematics 52-Calculus III, Philosophy 142-Engineering Ethics, etc.). Pass/fail enrollment in certain General Education elective courses which are used to satisfy the General Education requirement beyond specific titled courses require the prior approval of the director of engineering programs and may be utilized for a maximum of 21 units of such elective courses. With the foregoing exceptions, the general University pass/fail regulations apply.

#### **Special Program Pattern for NROTC Students**

NROTC requirements add 21 to 24 units to the standard program for the EE major. To meet the needs of NROTC and the EE major, a special year program pattern has been constructed utilizing Intercession and Summer short sessions, and one regular Summer session. The pattern of this special program is available from the chair of Naval Science or the EE program director. The NROTC scholarship covers the full Electrical Engineering program. However, benefits beyond four years must be applied for through the Naval Science Department.

#### **Requirements for the Major (111 semester units)**

The requirements listed below also satisfy the General Education requirements in mathematics competency, natural sciences, and the upper division writing course (that is, Engineering Communications 190W).

#### **Mathematics and Basic Science Requirements (39 semester units):**

Mathematics (21 units): Mathematics 50, 51, 52, 110A, 110B, 140.

Physics (11 units): Physics 50 (4), 51 (4), 52 (3).

Chemistry (4 units): Chemistry 9 (or Chemistry 10/11 AB or equivalent).

Life Science Elective (3 units): Biology (excluding Biology 15), or Environmental Studies 2, or Marine Science 21.

#### **General Engineering Requirements (41 units):**

These courses include units in engineering science and other subject requirements in support of engineering practice.

Engineering 5, 16, 17, 20, 26, 60, 110, 114, 120, 122, 130, 150, 190W, 191.

#### **Electrical/Electronics Engineering Requirements (31 units):**

These courses include units in engineering science and engineering design.

Electrical Engineering 132, 140, 142, 160, 161, 170, 171, 192.

#### **General Education Requirements (42 additional units):**

All Electrical Engineering majors must satisfy the Foundations Curriculum in General Education specified by the University. In addition to categories covered under the major requirements above, the Electrical Engineering program requires the following specific General Education courses:

Philosophy 2, 142; Communication Studies 3 or 150; Economics 11; Psychology 175. For purposes of transfer, and/or upon approval of the engineering program director, Philosophy 1 may be substituted for Philosophy 2; Psychology 1 for Psychology 175; Economics 12 for Economics 11. English 21, Philosophy 2 and the foreign language requirement (that is, third semester competency in a foreign language) may be satisfied by passing competency examinations administered by the offering departments. The remaining General Education requirements are satisfied by selection of appropriate electives in the required categories. A complete General Education course requirements list for the Electrical Engineering major is available from the director of engineering programs, and is illustrated in the required program of study (standard pattern) which follows. Any substitutions or variations from this list must be approved by the director of engineering programs.



**ELECTRICAL ENGINEERING  
REQUIRED PROGRAM OF STUDY**

(Standard Pattern)

**FRESHMAN YEAR**

Semester I	Semester II
Mathematics 50 (4)	Mathematics 51 (4)
Preceptorial 5 (3)	Physics 50 (4)
English 21 (3)	Engr 20 (3)
Religious Studies (3)	Chemistry 9 (4)
Foreign Language III (3)	Philosophy 2 (3)*

**SOPHOMORE YEAR**

Semester I	Semester II
Mathematics 52 (4)	Mathematics 110A (3)
Physics 51 (4)	Physics 52 (3)
Engr 16 (2)	Engr 60 (4)
Engr 26 (3)	Engr 17 (2)
Economics 11 (3)*	Comm. 3 (3)*
	Philosophy (3)**

**JUNIOR YEAR**

Semester I	Semester II
Mathematics 110B (3)	Mathematics 140 (3)
Engr 114 (3)	Engr 150 (3)
Engr 120 (3)	Engr 130 (4)
Engr 110 (4)	Life Science (3)
Psych 175 (3)*	Religious Studies (3)

**SENIOR YEAR 1**

Semester I	Semester II
Engr 122 (1)	EEE 142 (4)
EEE 132 (4)	EEE 160 (4)
EEE 140 (4)	EEE 170 (4)
Engr 190W (3)*	Engr 191 (3)
Phil 142 (3)*	Religious Studies
History (3)	UD (3)

**SENIOR YEAR 2**

Semester I	Total units (Standard Pattern):153
EEE 192 (3)	
EEE 161 (4)	
EEE 171 (4)	
Fine Arts (3)	
Literature (3)	

**Note:** Most engineering, and many mathematics and science courses required by the Electrical Engineering program are offered only in the Fall or Spring semester, but not both. Consult individual course sections for semester offering pattern, or see the director of engineering programs. Specific required General Education courses (that is, Economics 11, Philosophy 142, etc.) should be taken by the year/semester indicated. General Education electives (no specific course number or title) may be taken at any time, subject to General Education category requirements and prerequisites.

**Overall Program Requirements:**

In addition to the above major and additional General Education requirements, the EE major student is expected to be involved in professional aspects of the field. Since the engineering profession places a high value on professional society involvement, students enrolled in the Electrical Engineering major are required to be active student members of the Institute of Electrical and Electronic Engineers, Inc. (IEEE). The USD student section of the Society of Women Engineers (SWE) was recently chartered. EE students are also eligible for consideration of membership in Eta Kappa Nu, the national electrical engineering honor society.

It is possible through a combination of AP credit, CLEP credit, proficiency examinations (for English 21, Philosophy 1 or 2, third semester competency in a foreign language), transfer equivalence, etc., to meet the EAC/ABET curriculum requirements and the USD GE requirements in less than the nominal 153 units. Typically and without counting entry level proficiencies (for example, English 1, Mathematics 11, 12, first and second semester language competencies 2; Chemistry 10), a total minimum of 144 units is required, with at least 48 upper division units in ENGR/EEE courses, plus an additional 6 upper division units in Mathematics, Philosophy, or other GE. Consult an EE advisor for evaluation of credits.

**Recommended Minors:**

A minor in Mathematics is available, based on the mathematics requirements listed in the standard pattern which follows: Mathematics 50, 51, 52, 110A, 110B, and 140. Interested majors should apply to the Mathematics Department for specific approval of the minor.

A minor is also possible in Physics. Beyond the 11 units of physics required in the standard EE program (Physics 50, 51, 52 [lecture only]), a minimum additional seven units, six of which must be upper division, is required. For EE majors, Physics 124, 125; or 130, 131, plus Physics 52L or approved elective, are recommended. Interested majors should apply to the Physics area for approval.

Additional minors or selected coursework of possible interest to EE majors are available in a number of areas, including Computer Science, Biology, Chemistry, Psychology, and Business Administration, to name just a few. The interested student should consult this *Bulletin* or department for specific guidance, as well as an EE advisor for engineering career-oriented advice.

**GENERAL ENGINEERING COURSES (ENGR)****2 Introduction to Electro-Technology (3)**

Introduction to the underlying scientific principles of electrical and electronic technologies encountered in our daily lives. A course that answers how and why for the student with minimal background in physical science. Foundations of both historic and emerging technologies, and how they affect our environment, and society. Group discussions and demonstrations. The importance of electrical safety and ethical concerns tied to the use of modern technology. Fulfills a non-laboratory General Education Physical Science requirement for non-majors. Three hours lecture-recitation-demonstration per week.

**5 Introduction to Engineering (3)**

Introduction to the engineering profession. Problem solving concepts and tools; computer usage. Techniques and applications of engineering graphics using sketching and computer-aided graphics. Intended for majors in engineering or those exploring careers in engineering and related applied sciences. Three hours lecture-recitation, and one laboratory weekly. Prerequisite: Mathematics 11; concurrent enrollment: Mathematics 12, Mathematics 50 recommended. (Every Fall)

**16 Engineering Programming: Computation (2)**

Fundamentals of computer usage and programming in a structured high level language commonly utilized in general engineering problem solving and computation. Application programming problems illustrating programming techniques, analysis techniques, and program documentation relating to engineering problem solving. Three hours lecture-recitation-laboratory. Prerequisites: Engineering 5, 20 or consent of instructor; Mathematics 50; concurrent enrollment in Mathematics 51 recommended. (Every Fall)

**17 Engineering Programming: Systems (2)**

Fundamentals of computer usage and programming in a structured, high level language as commonly used in engineering systems development and applications; modular programming principles; use of the operating system and language constructs for program input/output on different machines; object-oriented programming. Three hours lecture-recitation-laboratory. Prerequisites: Engineering 5; Engineering 16, or equivalent and consent of instructor. (Every Spring)

**20 Introduction to Computer-Aided Engineering (3)**

Computer-aided analysis and design; 2D/3D computer-aided engineering graphics; formulation, planning, development, and documentation of a team design project; written and oral project proposals, design status reports, and final project

\*The courses marked with an asterisk are specific GE courses required for the EE program. Substitutions must be approved by the director of engineering programs.

\*\*Excluding logic and ethics.



report. Three hours lecture-recitation, and one laboratory weekly. Prerequisites: Engineering 5, Mathematics 12, Mathematics 50 recommended. Concurrent enrollment: Physics 50, Mathematics 50 or 51. (Every Spring)

## 26 Engineering Mechanics (3)

Statics and dynamics of rigid bodies and systems of particles using vector methods in two and three dimensions; equations of equilibrium, friction; application of Newton's laws; energy and momentum methods. Prerequisites: Physics 50; Mathematics 50. Mathematics 51 concurrent recommended. (Every Fall)

## 60 Electrical Networks (4)

Electrical element physical behavior and component models; network laws and analysis techniques; time and frequency domain techniques for the analysis of linear networks; introduction to single-phase AC power circuits and transformers; computer-aided analysis using SPICE or approved equivalent; laboratory circuit design, testing, and verification. Three hours of lecture and one laboratory weekly. Prerequisites: Engineering 5, Mathematics 51, Physics 51; concurrent enrollment: Mathematics 110A. (Every Spring)

## 94 Special Topics in Engineering (1-4)

Special topics in various areas of engineering science theory and practice, including laboratory. May be used to correct certain deficiencies in transfer work or for special projects. Prerequisite: Sophomore standing in engineering and consent of the instructor. May be repeated for credit for up to four credits total toward degree requirements.

## 98 Internship/Co-op Experience (1-3)

Directed lower division internship or co-op experience in an engineering or related activity. Usually involves a three-month summer work assignment with industrial firms or government agencies. Written report required. Credit not applicable to minimum engineering program graduation requirements. Placement contingent upon approval of participating agency. May be repeated for credit. Prerequisites: Engineering 16, 60 recommended and consent of Electrical Engineering program director. (Every Summer)

## 110 Introduction to Microcomputers (4)

Introduction to a basic microprocessor and its applications; microcomputer systems organization; memory and I/O device interfacing; assembly language programming of a basic microprocessor; use of assemblers and other development tools. Three hours of lecture and one laboratory weekly. Prerequisites: Engineering 16, 60; or equivalent and consent of instructor.

## 114 Engineering Materials Science (3)

Basic concepts of material structure and its relation to properties; atomic structure; mechanical and electrical properties; application to engineering problems; introduction to semicon-

ductor physics. Prerequisites: Chemistry 9 or equivalent; Physics 51; Mathematics 51; Physics 52 completed or concurrent recommended. (Every Fall)

## 120 Principles of Electrical Systems (3)

Fundamentals of polyphase electrical power circuits and devices; electromechanics; theory and operation of magnetic circuits and transformers; performance analysis of DC and AC electric machines; network principles and analysis techniques. Three hours of lecture. Prerequisites: Engineering 20, 60, Mathematics 110A. (Every Fall)

## 122 Computer-Aided Analysis and Simulation (1)

Equation, matrix and differential system solvers for computer-aided analysis and simulation; engineering applications with emphasis on system dynamics. Three hours lecture-recitation-laboratory. Prerequisites: Engineering 20; Engineering 16 or 17 or equivalent; Mathematics 110A; Engineering 60, 150. (Every Fall)

## 130 Principles of Electronics Engineering (4)

Analysis and design of analog and digital electronic devices, circuits and systems; low and high frequency models; design features and characteristics of integrated circuit operational amplifiers; logic gates and other digital logic building block elements; computer-aided analysis and design using SPICE; laboratory design, testing and verification. Three hours of lecture and one laboratory weekly. Prerequisite: Engineering 60. (Every Spring)

## 150 System Dynamics and Analysis (3)

Physical and mathematical models of the dynamics of electrical, mechanical, and combined systems; analogies. Methods of analysis for linear, lumped parameter models. Time and frequency domain analysis; Fourier series. Laplace and Fourier Transform methods of analysis. State variable representation; simulation diagrams. Introduction to discrete-time approximations and analysis. Computer-aided analysis. Prerequisites: Engineering 16 or 17; Engineering 60; Mathematics 110A; Engineering 26 recommended. (Every Spring)

## 190W Engineering Communications (3)

Planning and preparing engineering publications and oral presentations, based on directed library research related to current engineering topics and practice. Development of an individual informative report; short persuasive report. Written and oral reports; engineering/management context. Three hours of lecture-recitation. Prerequisites: Engineering 20, 110, 130; Communication 3 or 150 recommended. Concurrent enrollment in EEE 132, 140. (Every Fall)

## 191 Engineering Design and Practice (3)

Proposal and design phase of a capstone project culminating in a documented and approved

project to be implemented in the subsequent Engineering Design course. The project must be acceptable to a faculty advisor. Industry co-advisors and/or evaluators are encouraged. Computer-aided design techniques to study design alternatives and support the final design selection; faculty and guest lectures, and field trips, as appropriate; evaluation of ethical, economic, societal, organization, and safety considerations in the design process; and periodic oral and written reports. Two hours of lecture-recitation and one laboratory weekly. Prerequisites: Engineering 190W. Concurrent enrollment in EEE 142, 160, 170. (Every Spring)

## ELECTRICAL/ELECTRONICS ENGINEERING COURSES (EEE)

### 132 Electronic Circuit Design (4)

Electronic circuit design including integrated circuit realizations; computer-aided design using SPICE and other CAD application programs; design of feedback amplifiers and active filters; frequency response; special devices and applications. Three hours of lecture and one laboratory weekly. Prerequisites: Engineering 20, 130. (Every Fall)

### 140 Systems Logic Design (4)

Analysis and design of combinational and sequential digital circuits; digital circuit design using MSI, LSI, and VLSI; digital systems design using programmable logic devices; digital systems simulation; asynchronous sequential logic; digital electronics. Three hours of lecture and one laboratory weekly. Prerequisites: Engineering 110, 130. (Every Fall)

### 142 Microcomputer-Based Systems Design (4)

Use of the microcomputer as an engineering system component in design; systems characteristics and programming of microprocessors, microcontrollers and related architectures; data acquisition, control, timing, I/O, and interfacing; use of computer-aided tools for design and evaluation of microcomputer-based systems; design projects. Three hours lecture and one laboratory weekly. Prerequisites: EEE 140. (Every Spring)

### 160 Control Systems Design (4)

Analysis and design of linear feedback systems; control components; time, frequency, and transform domain representations and design techniques; system specifications, performance indices, evaluation and testing; controller and compensator design; complex frequency and state-variable techniques; computer-aided design and simulation; introduction to sampled-data and non-linear systems behavior. Three hours of lecture and one laboratory weekly. Prerequisites: Engineering 122, 150, Mathematics 110B. (Every Spring)

### 161 Digital Signal Processing and Control (4)

Analysis and design of sampled-data and discrete-time systems; Z-transform and state-space



techniques; introduction to hardware implementation; principles of digital signal processing and control including noise considerations; computer-aided analysis and design. Three hours of lecture and one laboratory weekly. Prerequisites: EEE 160, Engineering 110, Mathematics 140. (Every Fall)

#### 170 Communication Principles and Circuits (4)

Signal analysis; analog and digital modulation and detection techniques; modern communication circuits and devices; principles and applications of phase-locked loops. Three hours of lecture and one laboratory weekly. Prerequisites: EEE 132, Engineering 16, 150, Mathematics 110B; Mathematics 140 completed or concurrent. (Every Spring)

#### 171 Communication Transmission Principles (4)

Principles of electromagnetic fields, propagation, and transmission; Maxwell's equations; classical solutions using boundary conditions; microwave transmission line principles and applications; waveguides; fiber optics. Introduction to antennas and cable communication transmission principles. Computer-aided analysis and design. Three hours of lecture and one laboratory weekly. Prerequisite: EEE 170. (Every Fall)

#### 192 Electrical Engineering Design (3)

Principles of engineering design of electrical and electronic circuits and systems; technical and non-technical considerations; planning, implementation, evaluation, and documentation of an engineering design project; written and oral proposal, design reviews, and final project report; application of computer-aided analysis and design. Two hours of lecture-recitation and one laboratory weekly. Prerequisites: Engineering 191. Concurrent enrollment EEE 161 or 171. (Every Fall)

#### 194 Special Topics in Engineering (1-4)

Special topics seminar in areas of special interest to current engineering practice in electrical/electronics/computer engineering. May be repeated for credit. Prerequisites: Upper division standing and consent of instructor.

#### 198 Internship/Co-op Experience (1-3)

Directed upper division level internship/co-op experience in engineering research, design, development, manufacturing, or other engineering activity. Usually involves a three-month summer work assignment with industrial firms or government agencies. Written report required. Credit not applicable to minimum program graduation requirements. Placement contingent upon approval of participating agency. May be repeated for credit. Prerequisite: Second semester junior standing in the EE major or consent of instructor. (Every Summer)

#### 199 Independent Study (1-3)

Individual project in creative design and synthesis under the general supervision of a participating professor. Project documentation and written report or paper intended for publication. Project proposal must be submitted and approved prior to enrollment. Prerequisite: Second-semester junior standing in the EE major or approval of instructor. (Every semester)

## English

Fred Miller Robinson, Ph.D., Chair  
Eren Branch, Ph.D.

Gardner Campbell, Ph.D.  
Cynthia Caywood, Ph.D.  
Dennis M. Clausen, Ph.D.  
Sister Sally Furay, Ph.D., J.D.  
Ronald H. Hill, Ph.D.  
Joseph McGowan, Ph.D.  
Benjamin M. Nyce, Ph.D.  
W. Douglas Payne, Ph.D.  
Gail Perez, Ph.D.  
Mary Quinn, Ph.D.  
Barton Thurber, Ph.D.  
Sister Elizabeth Walsh, Ph.D.  
Irene Williams, Ph.D.

#### The English Major

The English major serves students who want to read with understanding, write with clarity and precision, and comprehend the relations between reading and writing. The lower division requirements of the major are meant to develop students' skills in reading and writing - specifically: 1) to train them to analyze, understand, and more fully enjoy structure and meaning in poetry, usually the most challenging genre for students; 2) to further their study of literary genres - whether drama, narrative, biography, tragedy, comedy, etc. - so that they may understand the power and significance of literary conventions; 3) to introduce them to a literary tradition as it develops over a period of time; and 4) to help them situate their readings in the context of world literature.

The upper division requirements of the major aim to develop students' critical skills in reading and writing as they study a breadth of significant works of literature in English—British, American and postcolonial. Through upper division electives, English majors may wish to pursue an interest generated by survey courses (for example, 100 and 101) to explore new literatures, to expand their critical thinking through advanced literary theory and prepare for graduate study in English, or to prepare for a vocation in teaching.

The ability to read intelligently and write precisely is essential in every field, and the English major is increasingly valued as a preparation for the professional and business worlds—this in addition to its more traditional value as a subject area for teaching at all levels of education. As English becomes more and more a world language, the English major will continue to increase in significance.

### RECOMMENDED PROGRAM OF STUDY

Fulfill the lower division requirements in the freshman and sophomore years. Take English 130W as an entry course into the major (see below). Take English 100 and 101 early in the major, preferably before more specialized courses.

Students should consult the list provided by the English Department each semester at the class reservation period for more details concerning the focus and materials of particular course offerings.

#### Major Requirements

The English major must satisfy the General Education requirements as set forth in this *Bulletin* and complete the following courses:

**Lower Division:** English 22, 23, 24 and 28

**Upper Division:** 27 units of upper-division work, including:

English 130W\* (3)  
English 100 (3) and 101 (3)  
English 116 or 117 (3)

A course in American literature before 1914:

English 152, 155, or 156 (3)  
Four upper division elective courses (12)

\*English majors are required to take this particular W course in fulfillment of their General Education upper division Written Literacy requirement. Any other advanced composition course will fulfill the GE but not the English major requirement, and 130W must then be taken as an English elective. English 130W is an entry-level course, ideally to be taken in the 2nd semester of the sophomore or 1st semester of the junior year. Credential candidates are required to take English 190. It is recommended that students preparing for graduate work in English take English 167 or a 195 course in critical theory.

**The Minor:** English 22, and two of the following: 23, 24, 28; either English 100 or 101, and six more upper division units.

### COURSES

#### 1 Basic Writing (3)

A writing workshop to prepare the student to take English 21. Instruction in the fundamentals of various modes of written expression, including work with sentences, understanding the importance of audience, editing and revision. Readings selected from non-fictional prose works. Students are encouraged to use the Writing Center, staffed by trained peer-tutors. (Every semester)



**21 Composition and Literature (3)**

Practice in writing and reading, with emphasis on developing skills of close observation, investigation, critical analysis, and informed judgment. Includes writing and rewriting throughout the semester, in response to study of literary texts and genres. Students are encouraged to use the Writing Center, staffed by trained peer-tutors. (Every semester)

**22 Poetry (3)**

An introduction to the forms of poetry written in, or translated into, English. (Every semester)

**23 Studies in Genre (3)**

Readings in a type of literature, ranging through periods and nationalities, in order to discover its nature. Genres may include: drama; narrative; epic; tragedy; comedy; biography; and others. (Every semester)

**24 Studies in Literary Traditions (3)**

Readings in a particular body of literature—which may be defined formally, ethnically, topically or otherwise—as it develops over a period of time. Examples: African-American literature, Literary Realism, The Hero, etc. (Every semester)

**25 Studies in American Literature (3)**

Readings in some period or aspect of the literature of the United States. (Every semester)

**28 Studies in World Literature (3)**

Readings in some period or aspect of literature outside England and the United States. (Every semester)

**31 Children's Literature (3)**

Readings in folk and fairy tales, myths and legends, as well as more contemporary and multicultural works. This course does not satisfy the Literature requirement for General Education.

**36 Introduction to Creative Writing (3)**

A workshop on the theory and practice of imaginative writing, primarily fiction and poetry. Discussion and analysis of student work as well as reading works by contemporary authors.

**97 Internship (1)**

Practice in various types of writing based on students' experience tutoring in inner-city schools. (Every semester)

**100 British Literature to 1800 (3)**

A survey of representative texts from the earliest literature in English to 1800. Consideration will be given to the cultural and historical contexts in which the works were written. (Every semester)

**101 Literature in English from 1800 (3)**

A survey of literature written in English from the Romantics to the present, which may

include American works and colonial/postcolonial works (from the Caribbean, Africa, India, etc.) in recognition of the spread of English as a world language. (Every semester)

**102 Dante (3)**

Dante's *Divine Comedy*, *Vita Nuova* and selected other works in their literary and historical contexts. Texts will be read in English translation.

**105 Medieval Perspectives (3)**

A study of the medieval imagination through selected major texts from the European Middle Ages.

**109 Chaucer (3)**

Analysis of selected works of Geoffrey Chaucer. Students will be expected to master the fundamentals of Chaucer's language. (Fall)

**112 Literature and the Bible (3)**

A study of the literary modes represented in the King James Version of the Bible: myth; epic; history; narrative; wisdom; poetry and prophecy.

**113 Sixteenth Century Studies (3)**

Readings from the prose and poetry of the 16th century. Authors may include Skelton, Wyatt, Sidney, Spenser, and others. (Fall)

**116 Shakespeare 1 (3)**

Studies in the plays of William Shakespeare, with emphasis on the comedies and histories. (Fall)

**117 Shakespeare II (3)**

Studies in the plays of William Shakespeare, with emphasis on the tragedies and romances. (Spring)

**118 Renaissance Drama (3)**

Studies in the plays of Marlowe, Jonson, Beaumont and Fletcher, Webster, and others. (Fall)

**119 Seventeenth Century Studies (3)**

Readings in the prose and poetry of the early 17th century. Authors may include Donne, Herbert, Johnson, Browne, Marvell, and others. (Fall)

**120 Milton (3)**

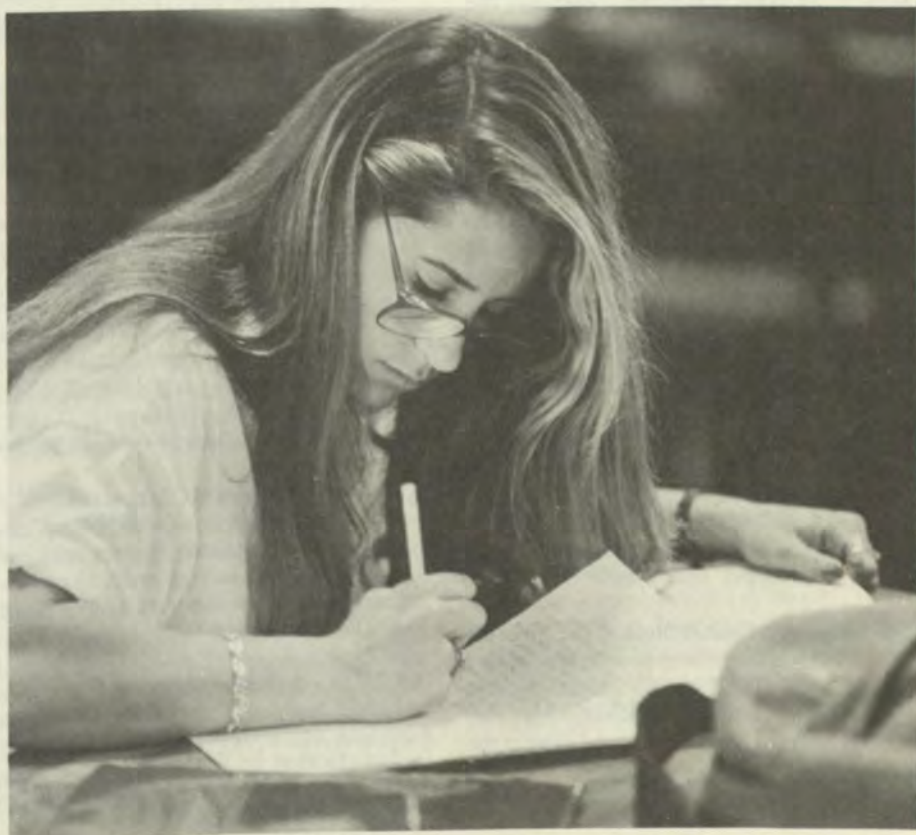
Readings from the poetry and prose of John Milton, with emphasis on *Paradise Lost*. (Spring)

**123 Eighteenth Century Studies (3)**

Readings from the prose and poetry of men and women writing between 1660 and 1800. The readings are grounded in the social, intellectual and cultural history of the period. (Spring)

**126 Restoration and Eighteenth Century Drama (3)**

Readings in the principal dramatic works written and performed between 1660 and 1800. The plays are studied in the context of the social, intellectual and theatrical history of the period. (Every year)





**128 Early Fiction (3)**

A study of selected fiction written between 1600 and 1820, as well as the cultural and critical contexts which influenced the rise of the novel. (Fall)

**130W Practical Criticism (3)**

Development of skills in the writing of critical essays through the study of representative critical problems. Coordinated readings in literature and critical texts. For English majors only. (Every semester)

**142 Nineteenth Century Studies: Romanticism I (3)**

Poetry and prose of the earlier romantic generation, especially Blake, Coleridge, the Wordsworths, and DeQuincey. May also include Continental writers (Schiller, the Schlegels, the early Goethe) and English theorists and essayists (Wollstonecraft, Godwin, Burke). (Every year)

**143 Nineteenth Century Studies: Romanticism II (3)**

Poetry and prose of the later Romantic generation, especially Byron, the Shelleys, and Keats. May also include Continental writers (Novalis, Pushkin, Lermontov, de Stael) and English theorists and essayists. (Every year)

**144 Nineteenth Century Studies: Victorian Literature (3)**

Poetry and prose of the Victorian period, especially Carlyle, Tennyson, the Brownings, the Pre-Raphaelites, Arnold, Wilde, and the early Yeats. May also include essayists (Ruskin, Newman, Mill, Pater), letters, journals and diaries of the period. (Every year)

**148 Nineteenth Century Studies: The Novel (3)**

Selected 19th century novels. Writers may include Austen, Dickens, the Brontës, George Eliot, Hardy, Conrad, and others. May also include relevant letters, essays and verse of the period. (Fall)

**152 American Poetry to 1914 (3)**

A study of Taylor, Emerson, Whitman, Dickinson, Robinson and other poets. (Fall)

**155 American Nonfiction to 1890 (3)**

Essays, autobiographies, journals, manifestos, travel writings, and reviews. May include works by Edwards, Franklin, Poe, Fuller, Douglass, Emerson, Thoreau, Whitman, and others. (Fall)

**156 American Fiction to 1914 (3)**

A study of Cooper, Hawthorne, Poe, Melville, Twain, James, Wharton, Dreiser and other fiction writers. (Spring)

**157 Modern American Nonfiction (3)**

Essays, autobiographies and miscellaneous prose. May include works by Henry James, Henry Adams, Gilman, DuBois, Stein, Wright, W.C. Williams, Sontag, and others. (Spring)

**160 Twentieth Century Poetry (3)**

Any selection of poets from the early modernists to the present. (Every year)

**163 Modern Continental Literature (3)**

Readings in Flaubert, Tolstoy, Kafka, Mann, Lorca, Valery, Celine and others since 1850. (Spring)

**166 Modern Drama (3)**

Playwrights may include Ibsen, Chekhov, Shaw, Brecht, O'Neill, Shepard, Mamet, Churchill, Shange, Wilson, and others. (Spring)

**167 Literary Theory and Criticism (3)**

Investigation of the values and assumptions that inform literature and literary criticism through readings in important theorists. Recommended for students planning on graduate work. (Every year)

**168 Twentieth Century American Fiction (3)**

Major works in relation to issues in modern American literature and culture, which may include fiction by Wharton, Hemingway, Faulkner, Fitzgerald, Porter and more contemporary authors. (Fall)

**169 Twentieth Century British Fiction (3)**

Authors may include Conrad, Lawrence, Joyce, Forster, Cary, Lessing and others. (Spring)

**175W Advanced Composition (3)**

A workshop course for non-English majors in the writing of expository, descriptive and critical prose. (Every semester)

**176 Creative Writing (3)**

Advanced workshop in the writing of poetry, fiction or drama. Discussion and analysis of work submitted by students. (Spring)

**185 Contemporary Fiction (3)**

Selected works of recent fiction from around the world. (Every year)

**190 Development of the English Language (3)**

A study of the phonology, morphology, and syntax of the English language; examination of the history of vocabulary and forms, and study of current theories concerning English grammar. Required of teacher credential candidates. (Every semester)

**195 Colloquium (3)**

Courses that treat a special topic or genre or author(s). See departmental list of course offerings each semester.

**194 The Teaching of Writing (3)**

A workshop course in the teaching of expository prose. Prerequisite: Advanced composition. (Every year)

**197 Internship (1-3)**

Selected internships for practical experience in the community, including teaching, writing, assisting in magazine production, tutoring in inner-city schools, etc. Opportunities vary. (Every semester)

**198 Senior Project (3)**

A capstone course designed to help seniors produce an original research project. Addresses research methods, critical thinking and the writing process. Students will share their findings. Prerequisite: Acceptance of project proposal by instructor. Recommended for students planning on graduate work. (Every semester)

**199 Independent Study (1-3)**

Arranged with the agreement of an instructor and the consent of the department chair.



# Environmental Studies

Hugh I. Ellis, Ph.D., Director  
Marine and Environmental Studies Program

An interdisciplinary minor is offered in Environmental Studies for those students from any major who want a better understanding of the scientific, legal, and political factors that affect human interaction with the environment. The program should increase students' awareness of the world and emphasize to them the complexity of the environmental problems facing the world and of the solutions available.

## REQUIREMENTS FOR THE MINOR:

### Required Courses

- Environmental Studies 3 - Environmental Issues (3)
- Environmental Studies 105 - Environmental Assessment Practices (3)

Additionally, 12 more units, at least six of which should be from the science or non-science group, as shown below. A course in ecology (Environmental Studies 2 cross-listed as Biology 2, or Biology 160) is considered highly desirable. A course in the physical environment (Environmental Studies 8 [formerly Environmental Studies 1] or Environmental Studies 10) is also recommended. At least nine units should be at the upper division level. All minors will be required to consult with an Environmental Studies advisor prior to taking over six units in the program. Several of the courses listed below have prerequisites.

Science grouping (recommended for students majoring in the natural sciences):

- Biology 160 - Ecology (4)
- Environmental Studies 164 (cross-listed as Biology 164) - Conservation Biology (3)
- Chemistry 20 - Analytical Chemistry (3)
- Environmental Studies 10 - Introduction to Earth Sciences (4)
- Marine Science 174 - History of the Oceans and Climate (3)
- Marine Science 179 - Atmospheric Science (4)
- Any upper division Environmental Studies course numbered from 110 to 190

Non-science grouping (recommended for students not majoring in science):

- Environmental Studies 2 (cross-listed as Biology 2) - Ecology and Environmental Biology (3) (may also be taken by science students outside of Biology or the Biology pathway of Marine Science)
- Environmental Studies 5 - Introduction to

- Meteorology (3)
- Environmental Studies 8 (formerly Environmental Studies 1) - The Physical Environment (3)
- Sociology 163 - Urban Sociology (3)

Other courses that may be taken to fill out the minor:

- Environmental Studies 108 (cross-listed as Economics 108) - Environmental and Natural Resource Economics (3)
- Environmental Studies 196, 198, and 199 Research; Internship; and Independent Study, respectively (a maximum of 3 units from any combination of these courses may count toward the minor)
- Business 142 - Business and Society (3)
- Business 143 - Environmental Management (3)
- Economics 104 - Urban Economics (3)
- Philosophy 138 - Environmental Ethics (3)
- Political Science 101 - Principles of Public Administration (3)

### 2 Ecology and Environmental Biology (3)

Investigation of the natural environment and the relationship of its biotic and abiotic components. Topics will include the ecosystem concept, population growth and regulation, and our modification of the environment. Laboratories will include field trips, one of which will be an overnight trip to the desert. This course satisfies the General Education requirement for a life science and a laboratory. Two lectures and one laboratory per week. Cross-listed as Biology 2. (Every semester)

### 3 Environmental Issues (3)

This course is a consideration of environmental problems that confront our society today. By looking at a few controversial environmental issues, students will be encouraged to distinguish political interests and emotional hyperbole from scientific facts; furthermore, students will be presented examples of scientific facts that support different interpretations of an issue. Both environmental resolutions and their social implications will be considered. This course is meant to be the gateway to the Environmental Studies minor; students are encouraged to take it before taking other courses in the program. This course does not satisfy any General Education requirement. Three hours of lecture.

### 5 Introduction to Meteorology (3)

An introduction to atmospheric science. Various atmospheric phenomena will be discussed with an emphasis on their underlying causes. Topics include: composition and thermal structure of the atmosphere; solar radiation; water in the atmosphere; circulation; weather; and human influences. There are no science prerequisites, but elementary mathematics including algebra will be used. This course satisfies the General Education physical science requirement, with laboratory. Cross-listed as Physics 5.

### 8 The Physical Environment (3)

A study of the physical environment of the earth and our place in that environment. Introductory geology, meteorology and oceanography will be included. Three lectures per week and some field experience, which may include an overnight trip. This course may occasionally be offered with a laboratory. May be used to satisfy a physical science General Education requirement. May not serve as an introductory course in Marine Science or Ocean Studies. Not open to students with credit for Environmental Studies 10. (Every semester)

### 10 Introduction to Earth Sciences (4)

Lecture and field investigations of geologic processes and geologic history. Laboratories will include fieldwork. An overnight trip may be required. This course satisfies the General Education requirement for a physical science with a laboratory. Not open to students with credit for Environmental Studies 1, except with consent of the director of the program. Three lectures and one laboratory per week.

### 95 Seminar in Environmental Studies (1)

An interdisciplinary seminar designed to emphasize the interaction of the various areas of environmental concern, and to focus on local problems. Prerequisite: Completion of, or concurrent registration in, two of the four introductory courses: Environmental Studies 1 or 10, 2, 3 and 5.

### 105 Environmental Assessment Practices (3)

An interdisciplinary approach to environmental decision-making. An introduction to the law relative to environmental impact reports, their contents and development.

### 108 Environmental and Natural Resource Economics (3)

An analysis of the economic principles that underlie the allocation, pricing, and use of natural resources. Topics include: the intertemporal allocation of depletable resources; the economics of fisheries and forestry; issues in the distribution and use of water resources; the economics of recycling and waste disposal; and economic perspectives on global warming and ozone depletion. Prerequisite: Economics 11.

### 150 Chemical Ecology (3)

A study of the chemical interactions between organisms and their environment. This course is concerned with pheromones and allelochemicals, how they are assayed, purified, isolated, and characterized. Tactical, stereospecific syntheses of these compounds are discussed. Three lectures weekly. Prerequisite: Chemistry 101B-102B or 103B. Cross-listed as Chemistry 150. (May not be offered every year)



**164 Conservation Biology (3)**

This course focuses on the history of conservation awareness, theory, and practice. Lectures address conservation biology from a historical perspective; readings and discussion are directed toward both classic and current literature. Student presentations will be expected. Weekend field trips may be required. Three meetings per week. Prerequisite: Biology 21; Biology 101 recommended. Cross-listed as Biology 164.

**171 Near Shore Processes (3)**

Physical and chemical processes which influence coastal sediment and water mass distribution and chemical composition. Topics include: currents and ocean circulation patterns on the continental shelf; coastal erosion and deposition; river flux and its influence on the chemical composition of seawater; sediment transport; and chemical reactions in estuaries and bays. The impact of human activities on coastal areas will also be covered. Three lectures per week. Prerequisites: Marine Science 20, Chemistry 10B/11B, and Physics 42 or 50. Cross-listed as Marine Science 171.

**181 Optical Petrography (4)**

The study of minerals, rocks, and soils in hand specimen and thin section. The main objective of this course is to impart an applied and theoretical knowledge of petrographic microscopy and the use of the polarizing microscope as a tool for the identification and classification of minerals and rocks. Topics will include origin, structure, and history of igneous and metamorphic rocks. Two lectures and two laboratories per week. Prerequisites: Environmental Studies 10 and Physics 43 or 51 or consent of instructor.

**184 Sedimentology and Stratigraphy (4)**

Identification and classification of sediments, sedimentary rocks, and sedimentary depositional systems. Oceanic and terrestrial environments will be considered as well as sedimentary history and paleobiogeography. Three lectures and one laboratory per week. Prerequisites: Environmental Studies 10, Marine Science 20; Marine Science 21 or Biology 21 recommended. Cross-listed as Marine Science 184.

**185 Environmental Geology (4)**

This course will provide an in-depth examination of the geologic principles and issues pertinent to the environmental consulting industry. It will include a discussion of geologic hazards including floods, mass wasting, earthquakes, and erosion. An examination of the geology of groundwater occurrence, groundwater flow, and groundwater development and management will also be addressed. Specific examples from the San Diego region will be emphasized. Three lectures and one laboratory per week. Prerequisites: Environmental Studies 10 and Mathematics 11 or calculus; or consent of instructor.

**194A-E Special Topics in Environmental Studies (2-4)**

Topics of special interest and/or unique opportunity. Prerequisites: Upper division standing and consent of instructor or director of Marine and Environmental Studies; other prerequisites may be listed in the *Schedule of Classes*.

**196 Research (1-3)**

Directed research in environmentally related areas of the student's choosing. Since many of the projects may be interdisciplinary in nature, the student must contact the director of Marine and Environmental Studies well in advance of enrolling in the class.

**198 Internship (1-3)**

Experience in the practical and experimental application of the field. Students will be involved in research projects conducted by agencies and institutions outside the University, such as state parks, government agencies, research facilities, or marine industries. Enrollment is arranged on an individual basis according to a student's interest and background, and is dependent on positions available and faculty approval. A maximum of three upper division units can be earned toward fulfillment of the requirements of the minor.

**199 Independent Study (2)**

An in-depth study of an environmental problem of the student's choosing. Guidance and coordination will be offered through a weekly meeting. The student will be required to submit a written report suitable for inclusion in the Environmental Studies Library. Prerequisite: Consent of the director of Marine and Environmental Studies.

## Foreign Languages and Literatures

Jacques M. Wendel, Ph.D., Chair

The Department of Foreign Languages and Literatures supervises the Bachelor of Arts degree programs in French and Spanish, a minor in German and Italian, and courses in Chinese, Latin, and Japanese. The department participates in the Hispanic Studies program.

Proficiency in a foreign language is one of USD's General Education requirements. By proficiency is meant a general communicative competence, that is, the ability to speak, understand, read and write the language that the student chooses to study. To that end, foreign language study at USD is uniformly conducted on the Intensive Language Method, an approach to language learning which emphasizes the active

use of the language being learned. Master classes of strictly limited size, small practice sessions, and a thoroughly interactive atmosphere are the hallmarks of USD's approach. At the time of their enrollment at USD, students with previous language study will be placed at the level suited to the effective completion of the USD foreign language requirement.

Students who have yet to fulfill the language requirement upon entering USD will be placed in Language I or II. Enrollment in Language III requires either successful completion of a USD Level II class of the same language or demonstration of adequate proficiency by passing a USD placement test. Students found to be at a level inappropriate to their background and skills will be placed at the appropriate level by the instructor or the department.

Students who have completed three semesters of transferable college-level courses in a language prior to enrolling at USD will automatically meet the language requirement upon transfer of the courses. USD students who wish to take Language III at another institution and transfer that course to USD must take Language II at USD or demonstrate Language II proficiency by passing a USD placement test prior to taking Language III at another institution.

## CHINESE

**1 Elementary Chinese I (3)**

Emphasis is on language practice, including an understanding of Chinese phonetics and grammar. This course fully integrates listening and speaking with reading and writing in Pinyin. (Meets 5 times a week)

**2 Elementary Chinese II (3)**

Continuation of Chinese I. Exercises are designed to consolidate the grammar covered in Chinese I. Introduction to the components and structure of Chinese characters. Study of the different strokes and stroke order. Texts are prepared to ensure the recurrence of sentence patterns already taught and to develop the student's oral/aural comprehension and reading and writing skills. Prerequisite: Chinese I or equivalent. (Meets 5 times a week)

**3 Intermediate Chinese III (3)**

This course will further increase the students' ability and fluency, while building vocabulary and new sentence patterns. Additional work on recognizing Chinese characters, with emphasis on the new 189 Chinese Radicals and simplified characters. Prerequisite: Chinese II or equivalent.



## RECOMMENDED PROGRAM OF STUDY FRENCH

### FRESHMAN YEAR

Semester I	Semester II
Preceptorial (3)	French II (3)
French I (3)	GE or
GE or	Electives (12)
Electives (9)	

### SOPHOMORE YEAR

Semester I	Semester II
French III (3)	French IV (3)
GE, Minor or	GE, Minor or
Electives (12-13)	Electives (12-13)

### JUNIOR YEAR

Semester I	Semester II
French (6)	French (6)
GE, Minor or	GE, Minor or
Electives (9)	Electives (9)

### SENIOR YEAR

Semester I	Semester II
French (6)	French (6)
GE, Minor or	GE, Minor or
Electives (9)	Electives (9)

## FRENCH

Jacques Wendel, Ph.D., Area Coordinator  
Michèle Magnin, Ph.D.  
Richard J. Stroik, Ph.D.

The French language is the vehicle for a rich culture and civilization. It is a humanistic, lively, modern language encountered not only in gastronomy, fashion, and travel, but also in industry, ecology, economics, and commerce. French thinkers have traditionally been in the avant-garde of intellectual life which makes a working knowledge of this language invaluable to scholars in all fields, just as it is indispensable for teachers, translators, and diplomats.

The elementary and intermediate French courses make intensive use of the language laboratory. For the French major, another major is recommended as well as a minor in another language (English, Italian, German, Spanish). A background of Latin or another foreign language (two years in high school or one year in college) is recommended for students majoring in French.

Students are strongly encouraged to take advantage of the USD International Study Programs.

**Preparation for the Major:** A grasp of the fundamentals of French grammar and syntax, a

correct pronunciation, and ease in oral expression (French 4 or the equivalent).

**The Major:** The 24 units of upper division work should include French 101 and 103 or their equivalent. A minimum of 15 upper division units must be taken on campus.

**The Minor:** Two options:

1. 18 units: at least nine of the 18 units must be in upper division courses: French 101, 103, 104, and 112 are recommended.
2. 12 units of upper division courses. Prerequisites: Fourth semester competency in French and approval by department chair. A minimum of six upper division units must be taken on the San Diego campus.

## LOWER DIVISION COURSES

### 1 Elementary French I (3)

First course in French. Introductory course to French life, language and grammar with stress upon pronunciation and aural comprehension. Meets 5 times a week. (Every semester)

### 2 Elementary French II (3)

Second course in French. Essentials of French grammar together with writing, reading, pronunciation and comprehension. Prerequisite: French I or equivalent. Meets 5 times a week. (Every semester)

### 3 Intermediate French III (3)

Third course in French. Confirmation and extension of rules of French grammar; intensive oral, aural and written practice. Prerequisite: French 2 or equivalent. (Every semester)

### 4 Intermediate French IV (3)

Fourth course in French. Oral and written practice on French idiomatic expression and syntax. Emphasis on accuracy and fluency. Conversation and composition on elements of French culture. Prerequisite: French 3 or equivalent. (Every semester)

### 30 French for Business (3)

Oral and written French with special emphasis on commercial correspondence and the language used in the business, professional and technical fields. Prerequisite: French 3 or equivalent.

### 99 Advanced French Conversation (3)

Fluent critical discussion on selected topics on all aspects of French civilization through modern texts. Prerequisite: French 4 or 30 or equivalent.

## UPPER DIVISION COURSES

### 101 Advanced Composition (3)\*

Advanced oral and written practice in current French idioms. Required for all advanced courses except French 103, 104 and 112. Prerequisite: French 4 or equivalent.

### 102 "Explication de textes" (3)

Oral and written studies of literary masterpieces. Introduction to dissertation. Prerequisite: French 101 or equivalent.

### 103 Cultural Backgrounds of French Civilization (3)\*

Survey of the social, cultural and artistic manifestations in French from the middle ages to the present. Prerequisite: French 4 or equivalent.

### 104 Introduction to French Literature (3)

A study of the literary history and principal masterpieces of French literature from the middle ages to the present. Prerequisite: French 4 or equivalent.

### 111 Masterpieces of French Literature (3)

Study in depth of style and content of selected works. List of readings to be established by the professor. Prerequisite: French 101 or equivalent.

### 112 French Phonetics and Phonology (3)\*

An intensive study of French sounds, diction, and speech and their practical applications. Prerequisite: French 4 or equivalent.

### 115 Aspects of Contemporary French Culture and Civilization (3)

An in-depth study of major facets of the modern French way of life, with special emphasis on the problems resulting from the rapid evolution of the past thirty years. Prerequisite: French 101 or equivalent.

### 118 French Women Writers (3)

Study of representative works of French women writers from Marie de France to the present in their historical and social milieu. Prerequisite: French 101 or equivalent.

### 121 Literature and Civilization: From the Gauls to the Organization of France and its "Grandeur" (1610) (3)

Legend and reality that established France through the centuries. Language, faith and reason that made her spirit live; history and society; ideas and ideals. Prerequisite: French 101 or equivalent.

### 122 Literature and Civilization of France, from its Glory to the 1789 Revolution (3)

Study of all aspects of the human milieu (historical, political, social, philological, economical and others) that created French literary classicism and why the revolution came about. Prerequisite: French 101 or equivalent.

### 123 Literature and Civilization: From the French Revolution to the First World War (3)

Study of the political, economic, social, religious and ideological forces that transformed the aristocratic society of the 18th century into a "bourgeois" society as witnessed by eminent individuals of the time. Prerequisite: French 101 or equivalent.

\* Required for a Single Subject Teaching Credential.



**124 Literature and Civilization of France after 1914 (3)**

Retention of traditional values and factors of change in the linguistic, historical and cultural trends of French society. Literature and arts as a reflection and expression of a changing society. Prerequisite: French 101 or equivalent.

**126 Study of the Literary French Genres (3)**

Poetry, theater and prose seen through selected Masterpieces with a critical approach particular to each of them. Prerequisite: French 101 or equivalent.

**130 France through its Theatre (3)**

Study of selected masterpieces of dramatic literature that vividly reflect France's people and culture and their evolution through the ages. Prerequisite: French 101 or equivalent.

**138 Structural Linguistics (3)\***

Introduction to descriptive linguistics presenting a unitary approach to linguistic analysis; phonological, morphological, semantic and syntactic systems; linguistic relationships. Presented in English. Prerequisite: French 101 or equivalent.

**140 Literature of French Expression Outside of France (3)**

The notions of "Francophonie." Readings from different areas of concentration: Belgium, Switzerland, Canada; literature and civilization of those countries. Prerequisite: French 101 or equivalent.

**141 Literature of French Expression Outside of France (3)**

The notions of "Négritude." Readings from different areas of concentration: Martinique, Madagascar, North Africa, Black Africa and others; literature and civilization of these countries. Prerequisite: French 101 or equivalent.

**193 Field Experience in French (1)**

Placement in a community agency where developed language skills will be utilized. A maximum of two units may be applied toward the major; none toward the minor. Prerequisite: Approval by department chair.

**199 Independent Studies (1-3)**

A program arranged between the advanced student and the instructor to provide intensive study in a particular area of interest. Extensive reading and consultation are required as well as preparation of reports to be assigned by the instructor. Prerequisite: Approval by department chair.

**GERMAN**

Brigitte L. Heimers, Ph.D.,  
Area Coordinator

The primary objective of the German program is to create a rewarding experience in

language, culture and civilization and to provide students with a marketable skill in their careers in the fields of industry, economics and commerce as well as the sciences, the humanities and international relations. From a business point of view, German is one of the most important languages in the world.

Students are strongly encouraged to take advantage of the USD International Study Programs.

**The Minor: Two options:**

1. 18 units: at least nine of the 18 units must be in upper division courses.
2. 12 units of upper division courses. Prerequisite: Fourth semester competency in German and approval by department chair. A minimum of six upper division units must be taken on the San Diego campus.

**LOWER DIVISION COURSES****1 Elementary German I (3)**

First course in German. Essentials of basic grammar with stress upon pronunciation, reading and aural comprehension. Meets 5 times a week. (Every semester)

**2 Elementary German II (3)**

Second course in German. A continuation on the basis of German I with emphasis on reading, writing, grammar, pronunciation, elementary conversation. Prerequisite: German I or equivalent. Meets 5 times a week. (Every semester)

**3 Intermediate German III (3)**

Third course in German. Complete review of grammar and syntax. Intensive oral and written practice to develop accuracy and fluency in the use of the language, stressing the grammatical aspects of German to master a basic, habitual proficiency in reading, writing and comprehension; cultural aspects of German life. Prerequisite: German 2 or equivalent. (Every semester)

**4 Intermediate German IV (3)**

Fourth course in German. A continuation of German 3; increased emphasis upon the study of German life, history and society. Prerequisite: German 3 or equivalent. (Every year)

**7 Scientific German (3)**

Readings taken from the fields of mathematics, natural sciences, behavioral sciences as well as philosophy and religion. Outside readings of periodicals and related articles with written reports. Review of highlights in German grammar as needed. German 2 or equivalent.

**30 Business German (3)**

Introduction to the terminology and techniques used in commercial transactions. Guidance to business and professional correspondence. Prerequisite: German 3 or equivalent.

**99 Advanced Conversation (3)**

Views and insights into topics and issues which occupy students personally and as members of society. Course will include a study of journalistic German for a greater appreciation of contemporary issues in German life. Prerequisite: German 3 or equivalent.

**UPPER DIVISION COURSES****101 Advanced Composition (3)**

Oral and written practice in current German idioms. Readings and interpretation of modern German plays and prose; techniques for plot and character analysis. Prerequisite: German 4 or equivalent. German 101 or equivalent is prerequisite for all advanced courses.

**102 Readings in German Literature (3)**

Assigned readings in modern literature; class reports on literary topics of prose and poetry. Prerequisite: German 101 or equivalent.

**103 Cultural Backgrounds of German Civilization (3)**

Survey of the social, cultural, and artistic manifestations in German from the origins to the present. Prerequisite: German 4 or equivalent.

**104 Commercial Correspondence and Advanced Business German (3)**

Oral and written *Geschäftsdeutsch* with special attention to accurate and idiomatic expressions used in economics, business, professional and technical fields with an insight into Germany's place in the European Common Market and the World Market. Extensive practice in writing business letters in the various fields of commerce. In addition, this course provides students with an option to achieve an international skills certificate, that is to prepare for the exam of the 'Diplom Wirtschaftdeutsch für die USA,' offered as a cooperative project by the American Association of Teachers of German, the German American Chamber of Commerce, Inc., and the Goethe Institute. Business majors may take German 104 in place of German 101. Prerequisite: German 4 or consent of instructor.

**110 German Literature from the Early Middle Ages to Goethe (3)**

A survey of German literature from the Early Middle Ages to Goethe, Poetry, drama and prose of the Old High German, Middle High German and New High German periods; excerpts from the early texts will be read in modern German adaptations. Prerequisite: German 101 or equivalent.

**111 German Literature from Goethe to Nietzsche (3)**

Survey of German literature from Goethe to Nietzsche (1900). A study of the principal aspects and masterpieces of German literature of each period; historical and linguistic development of German culture. Prerequisite: German 101 or equivalent.

\* Required for a Single Subject Teaching Credential.



**112 German Literature from 1900 to the Present (3)**

A survey of German literature from 1900 to the present. Important movements, authors and works in German literature since the turn of the century. Prerequisite: German 101 or equivalent.

**124 Literature of the Romantic Movement (3)**

The chief literary groups and personalities of the 19th Century. Discussion of the ideas and aesthetic problems reflected in their works. Outside readings and reports. Prerequisite: German 101 or equivalent.

**138 Structural Linguistics (3)**

Introduction to descriptive linguistics presenting a unitary approach to linguistic analysis; phonological, morphological, semantic, and syntactic systems; linguistics relationships. Presented in English. Prerequisite: German 101 or equivalent.

**193 Field Experience in German (1)**

Placement in a community agency where developed language skills will be utilized. Not applicable toward the minor. Prerequisite: Approval by the department chair.

**194 Topics in German Literature (3)**

Study at an advanced level of major topics of German literature, such as Medieval authors, Renaissance and Baroque masterworks, masterpieces of the Age of Enlightenment, the period of Storm and Stress, Classic and Romantic, Realism, Naturalism and Modern works of the 20th century; themes, authors, genres. This course may be repeated for credit when the topic changes. Prerequisite: German 102 or equivalent.

**199 Independent Studies (1-3)**

A program arranged between the advanced student and the instructor to provide intensive study in a particular area of interest. Extensive reading and consultation are required as well as preparation of reports to be assigned by the instructor. A maximum of three units may be applied toward the minor. Prerequisite: Department chair's approval.

**ITALIAN**

Hélène Laperrousaz, Ph.D.,  
Area Coordinator

**The Minor:** Two options:

1. 18 units: at least nine of the 18 units must be in upper division courses.
2. 12 units of upper division courses. Prerequisite: Fourth semester competency in Italian and approval by department chair. A minimum of six upper division units must be taken on the San Diego campus.

Students are strongly encouraged to take advantage of the USD Foreign Study Programs.

**LOWER DIVISION COURSES****1 Elementary Italian I (3)**

First course in Italian. Essentials of Italian grammar together with stress upon pronunciation, reading and aural comprehension. (Meets 5 times a week)

**2 Elementary Italian II (3)**

Second course in Italian. Same basic orientation as in Italian 1. Learning of basic grammar. Acquisition of new vocabulary consolidated through conversation stressing not only pronunciation and aural comprehension but also some aspects of Italian life and culture. Prerequisite: Italian 1 or equivalent. (Meets 5 times a week)

**3 Intermediate Italian III (3)**

Third course in Italian. Review of grammar and syntax. Acquisition of new vocabulary consolidated through conversation stressing not only pronunciation and aural comprehension but also some aspects of Italian life and culture. Prerequisite: Italian 2 or equivalent.

**4 Intermediate Italian IV (3)**

Fourth course in Italian. Reading of selected works by well-known contemporary Italian authors. Practice in composition and grammar for a solid base and increased fluency in the language. Prerequisite: Italian 3 or equivalent.

**30 Intermediate Conversation (3)**

Intensive drill in usage of spoken Italian based on assigned topics. Prerequisite: Italian 3 or equivalent.

**UPPER DIVISION COURSES****101 Advanced Composition (3)**

Further development of oral and writing skills. Continued study of the grammatical structure of Italian with emphasis on idiomatic expressions and syntax. Reading of modern authors to consolidate the learning of idiomatic expressions and prepare for literature classes. Prerequisite: Italian 4 or equivalent.

**103 Introduction to Italian Civilization and Culture (3)**

General study of the history, geography and artistic contributions of Italy through texts and audio-visual materials. Survey of modern life in Italy. Prerequisite: Italian 4 or equivalent.

**104 Survey of Italian Literature (3)**

Study of the literary history and major masterpieces of Italian literature from the Middle Ages to the present. Prerequisite: Italian 4 or equivalent.

**111 Masterpieces of Italian Literature (3)**

Study in depth of style and content of selected modern works. Prerequisite: Italian 4 or equivalent.

**138 Structural Linguistics (3)**

Introduction to descriptive linguistics pre-

sented a unitary approach to linguistic analysis. Phonological, morphological, syntactical systems. Linguistic relationships. Presented in English. Prerequisite: Italian 4 or equivalent.

**193 Field Experience in Italian (1)**

Placement in a community agency where developed language skills will be utilized. Not applicable toward the minor. Prerequisite: Approval by department chair.

**194 Topics in Italian Literature (3)**

Study at an advanced level of major topics of Italian literature such as Medieval masterworks, Renaissance masterpieces, and Modern works, themes and authors. May be repeated for credit when the topic changes. Prerequisite: Italian 104, 111 or equivalent.

**199 Independent Studies (1-3)**

A program arranged between the advanced student and the instructor to provide intensive study in a particular area of interest. Extensive reading and consultation are required as well as preparation of reports to be assigned by the instructor. A maximum of three units may be applied toward the minor. Prerequisite: Department chair's approval.

**JAPANESE****1 Elementary Japanese I (3)**

First course in Japanese. An introduction to the four basic language skills: listening, speaking, reading and writing (includes Katakana and Hiragana), with emphasis on oral skills. Supplemental practice with audio-visual materials required. Prerequisite: None. Meets 5 times a week. (Fall)

**2 Elementary Japanese II (3)**

Second course in Japanese. Continuation of Japanese I. Continued development of basic language skills. Increased practice in reading and writing (Katakana, Hiragana and introduction of fifty Chinese characters, used in context). Relationship between language and culture. Laboratory practice continued. Prerequisite: Japanese 1 or equivalent. Meets 5 times a week. (Spring)

**3 Intermediate Japanese III (3)**

Third course in Japanese. Further development of language competence. Practice in oral and written Japanese at the intermediate level, with emphasis on reading and basic composition. Laboratory practice continued. Prerequisite: Japanese 2 or equivalent. Meets 5 times a week. (Fall)

**4 Intermediate Japanese IV (3)**

Continued practice in oral and written Japanese. Various styles will be introduced to develop greater accuracy and fluency. Use of authentic modern Japanese materials for better appreciation of the culture. Work in language laboratory required. Prerequisite: Japanese 3 or equivalent. Meets 5 times a week. (Spring)





## LATIN

### 1 Elementary Latin I (3)

First course in Latin. Essentials of grammar and sentence structure. Study of culture and history through the reading of simple excerpts from Roman literature.

### 2 Elementary Latin II (3)

Second course in Latin. A continuation of Latin I. Translating brief sections of Latin authors and exploring various facets of Roman culture continue as the nucleus of the course. Prerequisite: Latin 1 or equivalent.

### 3 Intermediate Latin III (3)

Third course in Latin. Grammar review. A more intense understanding of Roman experience and thought is achieved by analysis and translation of extended passages of Latin literature. Prerequisite: Latin 2 or equivalent.

### 4 Intermediate Latin IV (3)

Introduction to Latin literature. Designed for those who have completed three semesters of the grammar sequence, this course exposes students to a variety of classical and medieval authors through graded readings. Review of grammar as needed. Emphasis on cultural and historical aspects.

## SPANISH

Robert R. Bacalski, Ph.D., Area Coordinator  
Kimberly A. Kowalczyk, Ph.D.  
Sister Marina Mapa, Ph.D.  
John L. Marambio, Ph.D.  
Sandra Robertson, Ph.D.  
Maria Cecilia Ruiz, Ph.D.

The primary objectives of the elementary and intermediate Spanish courses (Spanish 1-4) are to enable the student both to communicate in Spanish and to learn to appreciate Hispanic civilization and culture. The main objectives of

the upper division Spanish courses (Spanish 101 and above) are to give the student minoring or majoring in Spanish an in-depth knowledge of the structure of the language (grammar and linguistics courses), the civilization and culture (courses in Hispanic civilization), and the literatures of Spain and Latin America (literature courses).

The elementary Spanish courses make intensive use of the language laboratory. A background of Latin or another foreign language (two years in high school or one year in college) is required of students majoring in Spanish.

Students are strongly encouraged to take advantage of the USD International Study Programs.

**Preparation for the Major:** A working knowledge of the fundamentals of Spanish grammar and syntax, a correct pronunciation, and ease in oral expression (12 units of lower division or equivalent).

**The Major:** The 24 units of upper division work, which must be selected from Spanish courses numbered 100 or above, must include:

1. Spanish 102 or Spanish 104
2. Spanish 101
3. Spanish 103
4. At least one Spanish Linguistics course (109, 110)
5. At least one course in Peninsular Literature (Spanish 120, 121, 122, 123, 124, 125, 127, 160)
6. At least one course in Latin American Literature (Spanish 141, 144, 145, 149, 150, 151, 153, 160)

A minimum of 15 upper division units must be taken on the San Diego campus. The experience of living in a Spanish-speaking country is highly recommended.

**The Minor:** Two options:

1. 18 units: at least nine of the 18 units must be in upper division courses.

## RECOMMENDED PROGRAM OF STUDY SPANISH

### FRESHMAN YEAR

#### Semester I

Spanish 1 (3)  
GE or Electives  
(12)

#### Semester II

Spanish 2 (3)  
GE or Electives  
(12-13)

### SOPHOMORE YEAR

#### Semester I

Spanish 3 (3)  
GE, Minor or  
Electives  
(12-13)

#### Semester II

Spanish 4 (3)  
GE, Minor or  
Electives (12-13)

### JUNIOR YEAR

#### Semester I

Spanish UD (6)  
GE, Minor or  
Electives (9-10)

#### Semester II

Spanish UD (6)  
GE, Minor or  
Electives (9-10)

### SENIOR YEAR

#### Semester I

Spanish UD (6)  
GE, Minor or  
Electives (9)

#### Semester II

Spanish UD (6)  
GE, Minor or  
Electives (10)

2. 12 units of upper division courses. Prerequisites: Fourth semester competency in Spanish and approval by department chair. A minimum of six upper division units must be taken on the San Diego campus.

## LOWER DIVISION COURSES

### 1 Elementary Spanish I (3)

First course in Spanish. An introduction to the four basic language skills: that is, listening, speaking, reading, and writing. Emphasis is on the first two with extensive pronunciation practice. Supplementary work in the language laboratory is required. Prerequisite: None. Meets 5 times a week. (Every semester)

### 2 Elementary Spanish II (3)

Second course in Spanish. Continuation of Spanish 1. Review and conclusion of basic language skills. Language laboratory practice is continued. Prerequisite: Spanish 1 or equivalent. Meets 5 times a week. (Every semester)

### 3 Intermediate Spanish III (3)

Third course in Spanish. A review of Spanish grammar and sentence structure. Practice in oral and written Spanish at the intermediate level. Attention is given to reading and basic composition. Prerequisite: Spanish 2 or equivalent. (Every semester)



**4 Intermediate Spanish IV (3)**

Fourth course in Spanish. Reading of selected works by well-known Spanish and Latin American authors. Practice in composition and conversation, with some grammar review for increased fluency in the language. Prerequisite: Spanish 3 or equivalent. (Every semester)

**30 Spanish Literature in Translation (3)**

The masterworks of Spanish and Ibero American literature in English translation. This course may not be applied toward the fulfillment of the foreign language competency requirement nor toward the major or minor.

**75 Spanish for the Native Speaker (3)**

Practice in reading and writing with emphasis on selected grammatical principles. Prerequisite: Approval of instructor.

**UPPER DIVISION COURSES****100 Advanced Spanish Conversation (3)**

A course designed for students wishing to enhance their command of spoken Spanish through discussions of current issues in the Hispanic world. Readings range from editorials in newspapers and magazines to the works of major contemporary essayists, including Ortega y Gasset, Unamuno, Fuentes, and Paz. Development of thinking and means of expression through small group discussions, debates, dramatic readings, and oral interpretations of literary texts. Not intended for students who already have oral proficiency in the language. Strongly recommended for students who need additional practice before enrolling in upper division literature courses. Course credited only on the San Diego campus. Prerequisite: Spanish 4 or equivalent.

**101 Advanced Grammar and Composition (3)\***

An in-depth study of the grammatical structure of Spanish with emphasis on idiomatic expressions and syntax. Further development of oral and writing skills. Prerequisite: Spanish 4 or equivalent.

**102 Civilization of Spain (3)\*\***

An introduction to the cultural, political, and philosophical life of Spain from pre-Roman times to the present. Prerequisite: Spanish 4 or equivalent.

**103 Introduction to Hispanic Literature (3)\***

An introduction to Hispanic literature through the reading of different genres. Emphasis will be placed on the analysis of literary style and techniques. Prerequisite: Spanish 4 or equivalent.

**104 Civilization of Spanish America (3)\*\***

The history, geography, literary masterpieces, and customs of Spanish America. Prerequisite: Spanish 4 or equivalent.

**108 Commercial Correspondence and Business Spanish (3)**

Oral and written Spanish with special attention to accurate and idiomatic expressions currently in use in business and technical fields. Extensive practice in writing business letters. Prerequisite: Spanish 101 or equivalent.

**109 Spanish Pronunciation (3)\***

A study of the production and description of the sounds of Spanish and their similarities and differences with the English sound system. Attention is given to the problems involved in the teaching of Spanish pronunciation to English speaking students. Prerequisite: Spanish 101 or equivalent.

**110 Spanish Applied Linguistics (3)\***

This course is an introduction to linguistics and its practical applications. Students participate in the practical aspects of classroom techniques for the teaching and learning of Spanish. Prerequisite: Spanish 101 or equivalent.

**120 Survey of Spanish Literature I (3)**

A survey of Spanish literature from its origin in the Middle Ages to the end of the Golden Age, circa 1700. Prerequisites: Spanish 103 or equivalent.

**121 Survey of Spanish Literature II (3)**

A survey of Spanish literature from the year 1700 to the present. Prerequisite: Spanish 103 or equivalent.

**122 Spanish Literature of the Golden Age (3)**

A survey of the masterpieces and authors of Spain's great Golden Age in art and letters (1500-1700). Study of works by Garcilaso, Herrera, Gongora, Lope de Vega, Quevedo, Luis de Leon, Santa Teresa de Avila, San Juan de la Cruz and others. Readings in the pastoral, chivalresque, and picaresque novels and the Renaissance and Baroque poetry. Prerequisite: Spanish 120 or above.

**123 *Don Quijote de la Mancha* (3)**

Spain's greatest contribution to world literature, Cervantes' *Don Quijote*, is read and analyzed. Reading and discussion of appropriate critical commentary on *Don Quijote*. Prerequisite: Spanish 120 or above.

**124 Spanish Theatre of the Golden Age (3)**

A study of the history and characteristics of the Golden Age Spanish theater, from its beginnings, through its development, to its decline (end of 15th century to the death of Calderon in 1681). Reading of representative works by authors such Juan del Encina, Gil Vicente, Lope de Rueda, Lope de Vega, Ruiz de Alarcon, Tirso de Molina, and Calderon. Prerequisite: Spanish 120 or above.

**125 Spanish Literature of the Eighteenth and Nineteenth Centuries (3)**

Historical survey of the growth of Spanish literature during the Neoclassical, Romantic, and Realist periods. Selected masterworks by representative authors such as Feijoo, Luzan, Isla, Juan de la Cruz, Cadalso, Jovellanos, Espronceda, Zorrilla, Galdos, Palacio Valdes, Becquer, Pereda, and others are read and discussed. Prerequisite: Spanish 120 or above.

**127 Twentieth Century Spanish Literature (3)**

Survey of contemporary Spanish literature from the Generation of 1898 to the present. Reading and discussion of the works of Unamuno, Valle-Inclan, Baroja, Azorin, Benavente, Garcia Lorca, Salinas, Jimenez, Hernandez, Cernuda, Aleixandre, Otero, Casona, Sender, Cela, Delibes, and others. Prerequisite: Spanish 120 or above.

**138 Structural Linguistics (3)**

Introduction to descriptive linguistics presenting a unitary approach to linguistic analysis; phonological, morphological, semantic and syntactic systems; linguistic relationships. Taught in English. Prerequisite: Spanish 101 or equivalent.

**141 The Spanish American Short Story (3)**

Principal Spanish American short story writers from the genre's beginning in the 19th century to the present. Prerequisite: Spanish 103 or equivalent.

**144 Spanish American Literature I - Origins to 1888 (3)**

A survey of representative works and authors of the Colonial period through the 20th century. Introductory readings in Spanish American prose, poetry, and drama. Prerequisite: Spanish 103 or equivalent.

**145 Spanish American Literature II - 1888 to the Present (3)**

A study of literary movements in Spanish America from the Modernist period to the present. Readings in Spanish American prose, poetry, and drama of the time. Prerequisite: Spanish 103 or equivalent.

**149 Spanish American Novel (3)**

A study of the novels by 20th century Spanish American authors who have contributed to the Latin American literary boom, among them Azuela, Asturias, Cortazar, Vargas Llosa, and Garcia Marquez. Prerequisite: Spanish 120, 121, 141, 144 or 145 or equivalent.

**150 Contemporary Spanish American Theatre (3)**

A study of the outstanding drama produced in Spanish America in the 20th century. The theatre as a means of social and political expression. Prerequisite: Spanish 120, 121, 141, 144 or 145 or equivalent.

\* Required for a Single Subject Teaching Credential.

\*\* Either 102 or 104 fulfills the Civilization course requirement for a Single Subject Teaching Credential.



**151 Contemporary Spanish American Poetry (3)**

Study of the Modernism and Vanguardism movements in Spanish America, and the outstanding poets of today. Prerequisite: Spanish 120, 121, 141, 144 or 145 or equivalent.

**153 Mexican Literature and Culture (3)**

A survey of Mexican prose, poetry, and drama containing the principal trends followed in philosophy, music, and painting expressed in literary form. Prerequisite: Spanish 120, 121, 141, 144 or 145 or equivalent.

**157 Latin American Cinema (3)**

Study at an advanced level of Latin American film since 1950 as a document of a changing society. Includes discussion of the relationship between a literary opus and its cinematic interpretation. Prerequisite: Spanish 103, a Spanish literature course, or the consent of instructor.

**193 Field Experience in Spanish (1)**

Placement in a community agency where developed language skills will be utilized. A maximum of two units may be applied to the major; none to the minor. Prerequisite: Approval by department chair.

**194 Topics in Hispanic Literature (3)**

Study at an advanced level of special topics of Spanish and/or Spanish American literature, etc. such as Medieval authors, Golden Age theater, magic realism, indigenous literature, women writers, Chicano literature in Spanish, etc. Selected subjects will be announced in the *Schedule of Classes*. This course may be repeated for credit when the topic changes. Prerequisite: Spanish 120 or above.

**199 Independent Studies (1-3)**

A program arranged between the advanced student and the instructor to provide intensive study in a particular area of interest. Extensive reading and consultation are required as well as preparations of reports to be assigned by the instructor. A maximum of three units may be applied to the major; none to the minor. Prerequisite: Department chair's approval.

# Gender Studies

**Program Coordinators:**

Dr. Cynthia L. Caywood, English

Dr. Linda A. M. Perry, Communication Studies

Gender Studies is an interdisciplinary academic minor program of study that takes as its focus the history, development, and consequences of culturally acquired sexual identities. It is a field of study as complex as the many disciplines it weaves

together. At USD, those disciplines include literature, philosophy, religion, history, communication, psychology, sociology, anthropology, business, and economics. Gender Studies addresses such topics as the acquisition of gender identity across cultures; the influence of gender upon spirituality, moral choice, creativity, and language use; the relationship of gender to a wide spectrum of social problems such as poverty and violence; the history of various gender-related issues, such as family life, marriage, reproduction, divorce, childrearing, and sexual behavior. The Gender Studies minor is an 18 unit program that includes the following:

- 1) Gender Studies 1 - Introduction to Gender Studies;
- 2) Two lower or upper division elective courses to be selected from a list generated each semester by the program committee or courses listed below from this *Bulletin*;
- 3) Two elective upper division courses to be selected from a list generated each semester by the program committee or courses listed below from this *Bulletin*. Thus 3-9 units of lower division work, and 9-15 units of upper division coursework are required;
- 4) Two of the four elective courses listed in items 2 and 3 above must be in the Humanities and two must be in the Social Sciences; and
- 5) Gender Studies 197 - Advanced Gender Studies.

## COURSES

**1 Introduction to Gender Studies (3)**

An interdisciplinary introduction to such issues as gender socialization; men, women, and friendship; men, women, and romance; gender and communication; gender and language; gender and the media; gender and morality; gender and economics; gender and ways of knowing; gender and spirituality; etc. Students who have completed the interdisciplinary preceptorial "How the Other Half Lives": Gender Roles in Contemporary America," will waive this requirement.

**197 Advanced Gender Studies (3)**

A seminar devoted to advanced study in the field, supplemented by directed research on students' area of primary interest in their major. When appropriate, it may include an internship component. The research experience will culminate in a symposium.

Courses currently in the *Undergraduate Bulletin* that count toward the Gender Studies minor are listed below. Other courses that will count toward the minor will be provided on a semester by semester basis. Students should select their courses in consultation with one of the program directors. Please see the full course description under the appropriate departmental listings.

Anthropology 20 - Introduction to Cultural Anthropology  
 Anthropology 122 - South American Indian Cultures  
 Anthropology 128 - Pacific Cultures: Australia, Melanesia  
 Anthropology 130 - Pacific Cultures: Micronesia, Polynesia  
 Anthropology 152 - Kinship and Social Organization

Business 106 - Women in Management

Communication Studies 125 - Interpersonal Communication  
 Communication Studies 145 - Gender Communication

Economics 121 - Women and Work

English 185 - Contemporary Fiction

French 118 - French Women Writers (Prerequisite: French 101)

History 164 - Topics in Asian History: Women in Japanese History (not always offered)

Philosophy 143 - Gender and Economic Justice (cross-listed as Economics 121)  
 Psychology 114 - Developmental Psychology: Childhood and Adolescence  
 Psychology 116 - Developmental Psychology: Adulthood and Aging  
 Psychology 147 - Behavior Genetics  
 Psychology 148 - Psychobiology of Sexual Behavior  
 Psychology 153 - Psychology of Human Relations  
 Psychology 154 - Behavior Disorders of Childhood  
 Psychology 155 - Abnormal Psychology  
 Psychology 180 - Psychology of Women

Religious Studies 143 - Christian Marriage

Sociology 10 - Social Problems  
 Sociology 153 - Marriage and the Family  
 Sociology 157 - Social Stratification  
 Sociology 169 - Sexuality in Contemporary Society  
 Sociology 185 - Sociology of Aging  
 Sociology 194 - Special Topics in Contemporary Sociology: Gender and Sex Roles (not always offered)



# Hispanic Studies

Kimberly A. Kowalczyk, Ph.D., Coordinator  
Joan Anderson, Ph.D., School of Business  
Robert Bacalski, Ph.D., Foreign Languages and Literatures

Raymond Brandes, Ph.D., History  
Alana Cordy-Collins, Ph.D. Anthropology  
Iris Engstrand, Ph.D., History

Orlando Espín, Th.D., Religious Studies  
Sister Marina Mapa, Ph.D., Foreign Languages and Literatures

John Marambio, Ph.D., Foreign Languages and Literatures

Virginia Muller, Ph.D., Political Science

Gil Oddo, Ph.D., Political Science

Angelo Orona, Ph.D., Anthropology

Sandra Robertson, Ph.D., Foreign Languages and Literatures

Cecilia Ruiz, Ph.D., Foreign Languages and Literatures

Hispanic Studies is a multidisciplinary major that aims at developing both a mastery of the language and a broad understanding of Latin America, Spain and the Hispanic cultures in the United States. Students may take courses in Spanish, Anthropology, Economics, History, Literature, Political Science, and Religious Studies as part of the Hispanic Studies major. A variety of special lectures, films, and seminars supplement the regular course offerings. Students who major in Hispanic Studies are encouraged to study abroad either in Guadalajara, Mexico, where the University of San Diego administers a Summer Program, or Toledo, Spain, at the José Ortega y Gasset Foundation's International Program, with which the University is affiliated. An internship in the local (San Diego) Hispanic communities, in Tijuana or Guadalajara, completes the major. This program will be of particular interest to: 1) students desiring a broader and more integrated perspective of the Hispanic world than is usually available through a departmental major; 2) students planning to enter business, government or international service; 3) students preparing to teach in the social sciences or foreign languages; and, in general, 4) students planning to work in a multi-ethnic community.

## Preparation for the Major:

### Required:

Hispanic Studies 20 (or the Hispanic Studies preceptorial), Spanish 4 or 75 or equivalent, Anthropology 20 and History 16.

The following courses are recommended: Political Science 15, Sociology 10 and Spanish 101.

**The Major:** Thirty units of upper division coursework to be distributed as follows:

- twelve units in Spanish to include Spanish 102 or 104, Spanish 103, 3 units in

- Peninsular literature and 3 units in Spanish American literature
- six units in History, to include History 160 or 161
- nine units chosen from Anthropology, Economics, Hispanic Studies (Guadalajara), Political Science, Religious Studies, or Sociology courses listed below. No more than one course should be from the same area.
- three units divided in the following manner: 1 unit of Hispanic Studies 194 taken in conjunction with a 2-unit internship in the Hispanic communities of San Diego, Tijuana or Guadalajara.

Study abroad in a Spanish-speaking country is highly recommended for the major.

**The Minor:** Eighteen units distributed as follows:

- Nine lower division units to include Hispanic Studies 20 (or the Hispanic Studies Preceptorial), Spanish 4 or 75, and either Anthropology 20 or Political Science 15. Students who have the equivalency of Spanish 4 or 75 may chose another course in consultation with their advisor.
- Nine upper division units to include 3 in

Spanish, 3 in History, 3 in either Anthropology, Economics, Political Science, Hispanic Studies (Guadalajara), Religious Studies or Sociology. See listing below for acceptable courses in these disciplines.

## HISPANIC STUDIES COURSES

### 20 Introduction to Hispanic Studies (3)

An overview of some of the major issues and problems in the Hispanic world. Usually team-taught by professors from two different disciplines.

### 76 Dance Culture of Mexico (2)

The course will examine development of dance in Mexico, specifically the dance known as *Folklorico*. Consequent development of the *Mestizo* sentiment and culture with its "*bailes regionales*" will be the main focus. (Offered in Guadalajara)

### 140 Mexican Arts (2)

A study of Mexican arts. Discussion is directed toward the relationship of Mexican art, dance, theatre, and sculpture to the Mexican personality and society. Includes demonstrations and field trips. (Offered in Guadalajara)





## 68 ■ HISPANIC STUDIES

**165 Cross Cultural Studies (2 units, if taken in English; 3 units, if taken in Spanish)**

A study of cultural, social and psychological differences among people of the Americas, both north and south of the Rio Grande.

**194 Topics and Issues in the Hispanic Communities (1)**

To be taken in conjunction with an internship. The internship can be taken through the departments of English, History, Political Science, or Sociology. Must be approved by Hispanic Studies advisor along with the department offering the internship.

**Courses Approved for the Hispanic Studies Major and Minor:**

### **Anthropology:**

- Anthropology 110 - Ancient Mesoamerica (3)
- Anthropology 114 - Ancient Cultures of the Andes (3)
- Anthropology 122 - South America Indian Cultures (3)

### **Economics:**

- Economics 135 - Economic Development of Latin America

### **History:**

- History 153-154 - History of Spain, I & II (6)
- History 160-161 - Latin American History I and II (6)
- History 176-177 - United States Diplomatic History I and II (6)
- History 182 - The Spanish Borderlands (3)
- History 183 - Mexican American History (3)
- History 184 - History of Mexico (3)
- History 187 - History of Baja California (3)
- History 188-189 - History of California I and II (6)

### **Political Science:**

- Political Science 185 - Latin America in World Affairs (3)
- Political Science 186 - Politics in Latin America (3)

### **Religious Studies:**

- Religious Studies 158 - United States Latino Catholicism (3)
- Religious Studies 168 - United States Latino and Latin American Theologies (3)

### **Sociology:**

- Sociology 194 - Special Topics in Contemporary Sociology (3)(when the topic pertains to the Hispanic World)

### **Spanish:**

- Spanish 102 - Civilization of Spain (3)
- Spanish 103 - Introduction to Hispanic Literature (3)



- Spanish 104 - Civilization of Spanish America (3)
- Spanish 120 - Survey of Spanish Literature I (3)
- Spanish 121 - Survey of Spanish Literature II (3)
- Spanish 122 - Spanish Literature of the Golden Age (3)
- Spanish 123 - *Don Quijote de la Mancha* (3)
- Spanish 124 - Spanish Theatre of the Golden Age (3)
- Spanish 125 - Spanish Literature of the Eighteenth and Nineteenth Centuries (3)
- Spanish 127 - Twentieth Century Spanish Literature (3)
- Spanish 141 - The Spanish American Short Story (3)
- Spanish 144 - Spanish-American Literature I-Origins to 1888 (3)

- Spanish 145 - Spanish-American Literature II-1888 to Present (3)
- Spanish 149 - Spanish-American Novel (3)
- Spanish 150 - Contemporary Spanish American Theatre (3)
- Spanish 151 - Contemporary Spanish American Poetry (3)
- Spanish 153 - Mexican Literature and Culture (3)
- Spanish 194 - Topics in Hispanic Literature (3)

### **Hispanic Studies (Guadalajara):**

These courses are offered exclusively during the summer session in Guadalajara, Mexico.

- Hispanic Studies 76 - Dance Culture of Mexico (2)
- Hispanic Studies 140 - Mexican Arts (3)
- Hispanic Studies 165 - Cross-Cultural Studies (3)



# History

James O. Gump, Ph.D., Chair  
 Laetitia Argentero, Ph.D.  
 Raymond S. Brandes, Ph.D.  
 Elizabeth A. Cobbs, Ph.D.  
 Iris H.W. Engstrand, Ph.D.  
 Carl L. Gilbert, Ph.D.  
 James K. Otte, Ph.D.  
 Steven E. Schoenherr, Ph.D.  
 Kenneth P. Serbin, Ph.D.

**Preparation for the Major:** History 11-12 or 15-16, History 17-18.

**The Major:** The program in history introduces students to research and writing techniques as well as problem-solving skills useful in a variety of professions. In addition, the major inculcates a sensitivity to geographical and cultural diversity, an awareness of conflicting interpretations of the same occurrences, and an appreciation of contexts and traditions. History graduates find careers in government, law, teaching, foreign service, journalism, the motion picture and television industry, and business. Coursework may also lead to graduate studies in public history, historic preservation, teaching, law and international relations.

In addition to the lower division prerequisites, all history majors are required to take twenty-four units of upper division coursework, including History 100W (Historian's Methods). In the major, students must take three courses in a major area and two courses in a minor field, selecting these emphases from three categories: 1) the United States, 2) Europe, and 3) Latin America/Asia/Africa.

Students wishing to earn a History or Social Science Teaching Credential may do so while completing a major in History. The specific requirements for the teaching credential differ from general requirements for the History major. Students interested in pursuing a History or Social Science Teaching Credential should consult the department chair.

## The Minor:

Eighteen units, including History 11-12 or 15-16 or 17-18, plus twelve units of upper division courses selected in consultation with faculty advisor in History.

## COURSES

### 10 History of Science and Technology (3)

Foundational issues in the history of science and technology: how science arose in antiquity; why its development was delayed until modern times; how technology grew after the Industrial Revolution; why science and technology differ, yet depend on each other.

### 11-12 Western Civilization (3-3)

Lectures, readings, and discussions of ideas, attitudes, and institutions basic to an understanding of Western civilization and its relation to present day issues. History 11-Earliest times through 17th century. History 12-18th century to the present. (Every year)

### 15-16 World Civilizations (3-3)

An examination of the patterns of relationships and processes of change across the world from earliest times to the late 20th century. Emphasis will be given to historical geography, different styles of civilization, and to the effects of cultural contact and diffusion. History 15 covers the period to 1500; History 16 focuses on the period 1500 to the present. (Every year)

### 17-18 American Civilization (3-3)

Selected themes in U.S. history with emphasis upon the basic influences that have shaped American life. History 17 covers the colonial period through the Civil War with special attention to the development of political institutions. History 18 will emphasize the emergence of the U.S. as an imperial power and considers such topics as industrialization, reform, environmental questions, and global issues. History 17 meets the State of California requirement in American history and political institutions. (Every year)

### 100W Historian's Methods (3)

Beginning seminar in historical research, problems of investigation, critical analysis and presentation, correct use of footnotes and bibliography; acquaintance with major libraries, archives and the use of media techniques. Some attention to the development of historical writing and the philosophy of history. This course fulfills the GE writing requirement. (Every year)

### 110 The Ancient World (3)

Explores the cradles of civilization in Ancient Mesopotamia and Egypt. An introduction to early man is followed by a survey of Sumerian, Babylonian, Egyptian, Hittite, Phoenician and Hebrew cultures, as well as the Assyrian and Persian imperialism that replaced them. It covers the period through Cyrus the Great. (Every other year)

### 111-112 Greek and Roman Civilizations (3-3)

Study of the history and institutions of Greece from the birth of the city-states to the death of Alexander the Great. Study of the history and institutions of the Roman Republic and Empire from the foundation of Rome to the end of the 5th century. (Every other year)

### 121-122 Medieval History (3-3)

A study of the political, social, economic, and cultural foundations of Western civilization. Examination of representative medieval institutions such as the Church and monasticism, the Germanic kingdoms, feudalism, the town, and

## RECOMMENDED PROGRAM OF STUDY

### FRESHMAN YEAR

Semester I	Semester II
Preceptorial (3)	History 12/16 (3)
History 11/15 (3)	GE or
GE or	Electives (12-13)
Electives (9-10)	

### SOPHOMORE YEAR

Semester I	Semester II
History 17 (3)	History 18 (3)
GE or	GE or
Electives (12-13)	Electives (12-13)

### JUNIOR YEAR

Semester I	Semester II
History 100W (3)	History UD (6)
History UD (3)	GE or
GE or	Electives (9-10)
Electives (9-10)	

### SENIOR YEAR

Semester I	Semester II
History UD (6)	History UD (6)
GE or	Electives (9)
Electives (9)	

the university. Topics will also include representative government, rise of the national states, development of commercial institutions and social interaction during the Middle Ages. (Every other year)

### 131 Renaissance and Reformation (3)

Study of the nature and origin of the new learning, with its impact on the civilization of the late Middle Ages and early modern times. Sixteenth century European studies in the religious, political, economic, and social life of the Reformation and development of the national monarchies. (Every other year)

### 133 From Reformation to Revolution (3)

An analysis of 17th and 18th century politics, society, and cultures. Special attention to forces contributing to the Age of Enlightenment. (Every other year)

### 145 Topics in Military History (3)

A critical study of the various aspects of warfare as they have evolved in history. Emphasis will be on particular wars, strategies, leaders and military innovations that have dramatically affected, and are continuing to affect the course of history. The time span will range from ancient times to the present. The course may be repeated as the topics vary.



**146 Topics in Early European History (3)**

Lectures, readings, discussions, and papers on certain major topics such as the rise of the city, the crusades, seagoing activities, scientific developments, the Age of Discovery, the Age of Enlightenment, and other specialized subjects from ancient times through the French Revolution. The course may be repeated as topics vary.

**147 Topics in Modern European History (3)**

Topics may include romanticism, liberalism and nationalism, the industrial revolution, capitalism and the triumph of the bourgeoisie; imperialism and the "Golden Age of Hope"; the century of war; the Cold War and its consequences; the New European and the Global System. The course may be repeated as topics vary.

**150 History of England to 1688 (3)**

The development of England from earliest times to the Glorious Revolution of 1688. Emphasis upon origins of Anglo-American liberties, common law, and representative government; the social and political background to the age of Chaucer, Shakespeare, and Milton; and England's evolution from frontier outpost of European civilization to its central position in a world empire based upon maritime and commercial supremacy.

**151 History of England and Great Britain Since 1688 (3)**

The development of England and Great Britain from the Glorious Revolution of 1688 to the present. Emphasis upon the origins and consequences of the industrial revolution, the transition from empire to the British Commonwealth of nations, and the conditions leading Britain from the height of world power and prestige in the Victorian Age to major 20th century calamities.

**152 The British Imperial Experience (3)**

An analysis of themes and processes in the British imperial experience from the 18th century to the present. Emphasis upon colonial nationalism, indigenous resistance and collaboration, theories of colonial administration, economics and imperialism, and decolonization.

**153-154 History of Spain I and II (3)**

The early portion of Spanish history covers the country's pre-history beginning with the Caves of Altamira and continues through the Roman Period, Visigothic Period, Moslem Conquest, Christian Reconquest, Expansion into the New World, the Hapsburg Empire and the transition to the Bourbon monarchy. The second half will cover expansion under the Bourbon monarchs, 19th century problems of civil strife, Spain's role in world politics during the early 20th century, the Republic, the Spanish Civil War, the dictatorship of Franco and the restoration of Juan Carlos.

**155 Imperial Russia (3)**

A study of the development of the Russian state from the rise of Kievan Russia to the first 20th century revolution. Special emphasis on the role of the Tsarist autocracy, the Orthodox Church, and pan-Slavism.

**156 Russia Since 1917 (3)**

A detailed investigation and analysis of the revolutionary upheavals and tragedies shaping Russia and its adjacent neighbors from the Bolshevik Revolution of 1917 to the collapse of Communism and the uncertain years of the 1990s.

**157 Topics in Russian and East European History (3)**

A critical analysis of themes and issues in the history of Russia and Eastern Europe. Topics may include Russia in Revolution, Russia since Peter the Great, and the Crisis in the Balkans.

**158 Topics in Modern World History (3)**

An in-depth investigation into a variety of recent historical events that have affected the United States in its world setting. Selected topics will be announced in each semester's *Schedule of Classes*. This course may be repeated for credit when the topic changes.

**159 The Nineteenth and Twentieth Century Middle East (3)**

An inquiry into the historic Middle East emphasizing the growth and decline of the Ottoman Empire, Arab and Jewish nationalism and the paths to independence.

**160-161 Latin America I and II (3-3)**

Part I: The Age of Discovery; Indian civilization; social, political, and religious institutions introduced to the New World; forces contributing to the movement for independence from Spain and Portugal; social and cultural developments. Part II: Rise of Mexico and the nations of South America as independent republics from 1821 to the present. Studies of church-state relationships, dictatorships, land problems, cultural and social institutions, and the Organization of American States. (Every year)

**162 Topics in Latin American History (3)**

A study of specific topics and themes in the history of Latin America, such as the role of religion and the Catholic Church, 20th century revolutions and social upheaval, and the history of particular groups, including Amerindians, women, and rural and urban workers. Students may repeat the course for credit when the topic changes.

**164 Topics in Asian History (3)**

An in-depth look at special themes and issues in the history of East Asia, including such topics as the History of Korea, Imperialism in Asia, The Pacific War, and Women in Japanese History. This course may be repeated for credit when topics change.

**165 History of China (3)**

A critical survey of continuity and change in Chinese society from ancient times to the founding of the People's Republic of China.





Emphasis will be given to the dynamic interplay of innovation and tradition that has shaped the Chinese past and guides its future.

### 166 History of Japan (3)

An examination of themes in the Japanese experience, including the origins of the Japanese state, the rise of the warrior class, the impact of contact with the West, and the transformation from an isolationist, agrarian country to a military giant, to a broken, defeated nation, and to an economic superpower, in the course of little over a century.

### 168 Topics in United States Mass Media History (3)

A history of the mass media in the United States, focusing on selected topics, such as Television and American Politics, History and Film, The Newspaper in History, Media and the Presidency, and Broadcasting in American History. Cross-listed as Communication Studies 168.

### 171 Topics in Early American History (3)

Includes discovery and exploration, the Colonial Period, the American Revolution, the Federalist Era, and other topics in the political, economic, social and cultural history of the United States before 1800. May be repeated for credit when the topic changes.

### 173 Armed Conflict in American Society (3)

A multidisciplinary examination of the impact of war and potential war on the experience, thought, and values of the United States. Topics will include U.S. military policy from the American Revolution to the Cold War, popular American attitudes toward war and the armed forces, the moral issues inherent in war and peace decisions, and the nature of nuclear warfare in the modern era.

### 174 Civil War and Reconstruction (3)

History of the United States from 1850 to 1877 with special emphasis on the political, economic, social, and military aspects of conflict between the North and the South. Includes the causes of the war, military strategy, the aftermath and its effects on the United States in later years.

### 175 Topics in Modern American History (3)

Topics may include the Progressive Era, World War I, Great Depression, New Deal, World War II, United States-Latin American Relations, or other topics in the political, economic, social and cultural history of the United States from 1865 to the present. May be repeated for credit when the topic changes.

### 176-177 United States Diplomatic History I and II (3-3)

Part I: Foreign relations of the United States from the American Revolution to the Spanish American War. Part II: The role of the United States as a world power during the 20th century.

### 178 Topics in United States Intellectual and Social History (3)

Topics may include ideas and movements that are part of the intellectual or social history of the United States, such as liberalism, conservatism, sectionalism, slavery, communications, architecture, labor, immigration, feminism, Progressive Reform. May be repeated for credit when topic changes.

### 179 United States Business and Economic History (3)

Business and economic background of the American Revolution and the Constitution; the Industrial Revolution in America; economic issues in the sectional crisis leading to the Civil War; the rise of big business; economic and business developments in the 20th century from World War I to the present.

### 180-181 The American West I and II (3-3)

Part I: Discovery, exploration, and settlement of the Trans-Mississippi West to the time of the War with Mexico; analysis and interpretation of the role of the American Indian, trapping, trading, and the United States Army. Part II: From 1848 to the present day; mining; Indian Wars; agricultural West; water and the arid regions; the American West as a region economically, socially, and politically important.

### 182 The Spanish Borderlands (3)

Discovery, exploration, and settlement by Spain of the North American region from Florida to Alaska with particular emphasis on the Spanish Southwest. Includes the history of the native Indian inhabitants and the role of the French in Louisiana to 1763. Generally covers the period from 1500 to 1810.

### 183 Mexican American History (3)

Exploration and settlement of northern Mexico and the Hispanic Southwest from colonial times to the present. Includes the history of native Indian inhabitants and the effects of both Mexican and American penetration into the region. Topics cover the impact in present-day society of Hispanic and Mexican cultural values, problems faced by persons of bicultural heritage, and recent United States-Mexican relations, especially in the border areas. (Every other year)

### 184 History of Mexico (3)

A history of Mexico from earliest times to the present. Includes a survey of indigenous civilizations; Spanish conquest and influences; the Mexican-American War of 1846; the dictatorship of Porfirio Diaz; the era of the Mexican Revolution; political development since the 1920s and United States-Mexican relations during the modern period.

### 186 The Pacific Ocean in History (3)

History of maritime activities in the Pacific with emphasis on discovery and exploration: covers Spanish, Portuguese, French, English, Dutch and Russian sea expansion. Topics include the study of Polynesia, the Manila Galleon trade, and 18th century scientific expeditions.

### 187 History of Baja California (3)

History of Lower California from the time of the first Spanish maritime explorations, circa 1520, to modern times. Emphasis on land, sea, and the people; Spanish and Mexican institutions. Detailed studies particularly for the Mission period, the Mexican War, and the growth of cities.

### 188-189 History of California I and II (3-3)

Part I: California from its discovery to the Mexican War with emphasis upon Spanish and Mexican cultural contributions; special attention given to the role of San Diego. Part II: The growth of California from 1848 to the present day with emphasis upon political, economic, and cultural forces explaining the role of California in the 20th century. (Every year)

### 190 History of Africa (3)

An analysis of particular themes in the African historical experience from earliest times to independence from colonial rule. Special attention will be given to culture, society, and processes of change in the pre-colonial period and development and underdevelopment since the European intrusion.

### 191 Issues in Modern Africa (3)

A critical study of issues confronting Africans in the 20th century. Alternating courses may include Problems in Africa since Independence and the South African Dilemma. The course may be repeated for credit when the topic changes.

### 195 Senior Colloquium (3)

A seminar for History majors, focusing on the development of a project of original research and the writing of a senior thesis.

### 197 Internship (3)

Practical experience in a field setting under professional supervision. Interns may be assigned to the City or County of San Diego, Museum of San Diego History, or a similar institution. See department chair for assignment.

### 199 Independent Study (1-3)

Directed readings, a special project, or a research paper for history majors of high scholastic standing. Consent of the department chair must be obtained. The maximum of 3 units will be allowed only under special circumstances.

**Note:** For graduate courses in History, or a Master of Arts in Teaching (M.A.T.), see the *Graduate Bulletin*.



# Interdisciplinary Humanities

Florence Morgan Gillman, Ph.D., Director

Faculty Coordinators:

Marilyn D. Bennett, Ph.D.

Helen deLaurentis, Ph.D.

James K. Otte, Ph.D.

Michael F. Wagner, Ph.D.

Jacques M. Wendel, Ph.D.

Irene Williams, Ph.D.

Instituted in 1988, the Interdisciplinary Humanities major requires that students take courses from several different Humanities disciplines and it places special emphasis on interrelationships among these disciplines. The Humanities are not separate, isolated spheres of knowledge or art but integral parts of human experience. Although contemporary universities compartmentalize the Humanities into distinct academic departments, teachers in those departments recognize the interrelatedness of their disciplines. The Interdisciplinary Humanities major breaks down artificial boundaries between disciplines and appeals especially to students whose own academic interests cannot be satisfied by a single, "standard" Humanities major. The Humanities disciplines are: Art, English, Foreign Languages and Literatures, History, Music, Philosophy, Religious Studies, and Theatre Arts.

The idea (or ideal) of the Humanities, or Humanistic studies, has a long history. Long considered the paradigm of a liberal education, "Humanistic studies" refers to a course of study which examines human history, culture, and values and which considers these to be of greater and more lasting value than more narrowly vocational or scientific training. The Interdisciplinary Humanities major allows students to explore the ways in which Humanities disciplines examine and express the "human side" of our existence—our history and languages; our art, music, drama and literature; and our philosophical and spiritual aspirations. It provides a unique educational experience and seeks to foster creativity, vision, and intellectual breadth and flexibility; an understanding and appreciation of human history, culture, accomplishments, and potentials; and an ability to understand and integrate diverse methods of expression and knowledge.

Students in this major will receive a firm basis at the lower division level in all of the Humanities areas. At the upper division level, students are given an opportunity to develop their own interdisciplinary interests, selecting courses from various Humanities disciplines. Some restrictions are placed on this selection to insure, on the one hand, that students are well acquainted with the methods and achievements

of at least one of the Humanities disciplines while, on the other hand, maintaining the interdisciplinary character of the major. Moreover, all upper division courses are selected in consultation with the major's coordinator. There is also a sequence of three (required) courses designed specifically for this major, culminating in a seminar-style course in which senior students apply their interdisciplinary experience to a single, unifying theme or topic of their choosing.

The Interdisciplinary Humanities major prepares students for a life of continuing growth and humane development. It can prepare students for formal study in a number of graduate and professional areas. It also embodies qualities of a Liberal Arts education which increasing numbers of employers are finding desirable, yet sorely lacking in more explicitly "career oriented" programs.

## Major Requirements:

Students majoring in Interdisciplinary Humanities must satisfy all of the General Education requirements as set forth in this *Bulletin*. Although this major requires more total units than majors in the individual Humanities departments, students should note that a number of these units also satisfy General Education requirements.

## Lower Division Preparation:

Humanities 60 (3)

Fine Arts (6): 3 units in each of two disciplines (Art, Music, Theatre)

English (6), excluding English 1 and English 21

History (6)

Philosophy (6), excluding Logic

Library Science 1 (1)

Satisfaction of remaining General Education requirements, which include Foreign Languages and Theological and Religious Studies

## The Major:

Humanities 180A (1) & 180W (3)

36 upper division units as follows:

1. A classical studies course: Humanities 120, or another course in an humanities discipline approved by the Humanities coordinator;
2. A course in medieval and/or renaissance studies in an humanities discipline approved by the Humanities coordinator;
3. At least 12 but not more than 18 of the 36 units are to be in a single humanities discipline, termed the Area of Concentration;
4. No more than 9 units from an humanities discipline outside the Area of Concentration may be applied towards the major; and

5. A reasonable portion of the upper division units should be devoted to a unifying theme, that is, to a major cultural-historical period or some other identifiable topic of interest.

**Notes:** Students must satisfy any prerequisites for upper division courses set by the department they choose as their area of concentration. The eight Humanities disciplines, from which the 36 upper division units are to be selected, are: Art, English, Foreign Languages and Literatures, History, Music, Philosophy, Theological and Religious Studies, and Theatre Arts. Not more than three total units of internship, field experience, or tutoring coursework in humanities departments may be applied toward the upper division requirements of this major. This does not include independent studies courses of a fully academic nature.

## 60 Introduction to the Humanities (3)

This course examines interactions among art, literature, music, philosophy, and religious and secular history at several pivotal times in Western civilization—for example, Classical Greece, the High Middle Ages, the Italian Renaissance, the Enlightenment, or the Industrial Revolution. In this way, the subject matter of the various Humanities disciplines are seen to be different yet not separate aspects of human experience, and their essential roles in the development of human culture are observed.

## 120 Classical Humanism (3)

More than any other ancient civilizations, Classical Greece and Rome laid the foundations of Western culture. This course focuses on the intellectual and literary history of the Greek and Roman period, including such figures as Pindar, Homer, Sophocles, Aeschylus, Plato, Aristotle, Menander, Seneca, Cicero, Galen, and Virgil. Prerequisites: History 11 or 15, and Philosophy 70.

## 180A and 180W Senior Research Seminar (1;3)

This is a two semester course. Students will register for **one unit during the Fall semester and three units during the Spring semester**. In the Fall, students will define a research topic that would allow them to integrate and apply their interdisciplinary experience in the Humanities, and they must compose and have approved a research proposal and bibliography on that topic. The approved project must result in a substantial research paper, to be completed and presented during the Spring semester. Prerequisite: Senior standing in the Interdisciplinary Humanities major or approval of the Humanities coordinator.



# International Relations

Lee Ann Otto, Ph.D., Chair  
Department of Political Science

The International Relations major is recommended as a field of study for those students seeking careers abroad in government or in private industry, for teachers, for those planning careers in journalism, law, and related fields and for those who intend to pursue graduate studies. The major consists of not less than 30 upper division units selected in consultation with an advisor from the Political Science faculty.

## Preparation for the Major:

Political Science 15, 20, and 95; History 11-12 or History 15-16; Art 33; Economics 11 and 12; and the General Education requirements.

## The Major:

Thirty units of upper division work to include:

- A. Political Science: 15 upper division units (five courses) from among the following:
- Political Science 110 - Comparative Political Ideology (3)
  - Political Science 111 - Religion in Politics (3)
  - Political Science 126 - Comparative Public Law (3)
  - Political Science 127 - International Law (3)
  - Political Science 128 - International Organizations (3)
  - Political Science 129 - Law of the Sea (3)
  - Political Science 132 - Regionalism in World Politics (3)
  - Political Science 154 - Politics in Western Europe (3)
  - Political Science 155 - Politics in France (3)
  - Political Science 156 - Politics in Germany (3)
  - Political Science 157 - Politics in England (3)
  - Political Science 158 - Comparative Politics of Developing Countries (3)
  - Political Science 159 - Revolutionary Change (3)
  - Political Science 177 - European Security Policy (3)
  - Political Science 178 - Contemporary American Foreign Policy (3)
  - Political Science 179 - U.S. National Security Policy (3)
  - Political Science 180 - Russian Politics (3)
  - Political Science 181 - Politics in Eastern Europe (3)
  - Political Science 182 - Russian Foreign Policy (3)

\* With advisor's approval.

## RECOMMENDED PROGRAM OF STUDY

### FRESHMAN YEAR

Semester I	Semester II
Preceptorial (3)	History 12 or 16 (3)
Art 33 (3)	Pol. Sci. 15 (3)
History 11 or 15 (3)	GE or Electives (9-10)
GE or Electives (9-10)	
Electives (6)	

### SOPHOMORE YEAR

Semester I	Semester II
Pol. Sci. 20 (3)	Economics 12 (3)
Pol. Sci. 95 (3)	GE or Electives (12-13)
Economics 11 (3)	
GE or Electives (6-7)	

### JUNIOR YEAR

Semester I	Semester II
History UD (3)	Pol. Sci. UD (6)
Pol. Sci. 130	Soc. or Econ. UD (3)
Pol. Sci. UD (3)	GE or Electives (6-7)
GE or Electives (6)	

### SENIOR YEAR

Semester I	Semester II
Pol. Sci. UD (3)	Pol. Sci. UD (3)
Art or Music UD (3)	Electives (12)
History UD (3)	
Electives (6)	

- Political Science 185 - Latin America in World Affairs (3)
- Political Science 186 - Politics in Latin America (3)
- Political Science 187 - Politics in South Asia (3)
- Political Science 189 - Politics in Japan (3)
- Political Science 190 - Politics in China (3)
- Political Science 192 - Politics in the Middle East (3)
- Political Science 193 - Comparative Foreign Policy (3)
- Political Science 195 - Special Topics in International Relations (3)

- B. Humanities: 9 upper division units (three courses) with one course from Art or Music and two from History, to be chosen from the following:
- Art 133 - History of Modern Art (3)
  - Art 134 - History of Contemporary Art (3)
  - Art 135 - History of Oriental Art (3)
  - Music 120A - Music History I: 850-1750 (3)
  - Music 120B - Music History II: 1750-Present (3)
  - Music 145 - Music of Other Cultures (3)

- History 147 - Topics in Modern European History (3)\*
- History 151 - History of England and Great Britain Since 1688 (3)
- History 154 - History of Spain II (3)
- History 155 - Imperial Russia (3)
- History 156 - Russia Since 1917 (3)
- History 157 - Topics in Russian and East European History (3)\*
- History 158 - Topics in Modern World History (3)\*
- History 159 - The Nineteenth and Twentieth Century Middle East (3)
- History 160-161 - Latin America I & II (3-3)
- History 162 - Topics in Latin American History (3)\*
- History 164 - Topics in Asian History (3)\*
- History 165 - History of China (3)
- History 166 - History of Japan (3)
- History 173 - Armed Conflict in American Society (3)
- History 176-177 - United States Diplomatic History I & II (3-3)
- History 183 - Mexican-American History (3)
- History 184 - History of Mexico (3)
- History 190 - History of Africa (3)
- History 191 - Issues in Modern Africa (3)

- C. Social Science: 3 upper division units (one course) to be chosen from the following:
- Sociology 151 - Modern Chinese Society (3)
  - Sociology 162 - Sociology of Developing Nations (3)
  - Economics 133 - International Economics (3)
  - Economics 135 - Economic Development of Latin America (3)
  - Economics 137 - Economic Development of Asia (3)

- D. Political Economy: 3 upper division units (one course): Political Science 130-International Political Economy (3)

## The Minor:

Political Science 15, 20, 127 and nine additional upper division units selected in consultation with an advisor from the Political Science faculty.



# Library Science

Edward D. Starkey, M.S.L.S., M.A.,  
University Librarian

## 1 Research Methods (1)

A strong relationship exists between finding appropriate information sources and academic effectiveness. The goal of this course is instruction of students in the use of an academic library's printed resources and computers to find information for many disciplines.

## 149 History and Art of Books and Printing (3)

A survey of the development from ancient times to the present of the methods of publishing and disseminating knowledge. Various methods of writing, printing, and illustrating books are examined. Emphasis is on the examination of individual books from the library's special collections. Cross-listed as Art 149.

# Marine Science

Hugh I. Ellis, Ph.D., Director  
Richard E. Casey, Ph.D.  
Sarah C. Gray, Ph.D.  
Anne A. Sturz, Ph.D.

## Adjunct Professors:

Joseph R. Jehl, Jr., Ph.D.  
Donald B. Kent, M.S.  
Both above of Hubbs-Sea World Research  
Institute

The Marine Science major, offered by the Marine and Environmental Studies Program, is intended for students interested in the natural sciences as well as the marine world. It provides a rigorous curriculum that is intended to prepare students to go on to graduate studies or directly into oceanographic work. A core of oceanography courses unifies the Marine Science major, but the majority of the science curriculum comes from a concentration that the student elects from the natural sciences (biology, chemistry, or physics). The student majoring in Marine Science is encouraged to select an advisor from his or her area of concentration as soon as possible. A list of advisors is available from the director of the Marine and Environmental Studies Program.

## Preparation for the Major:

Lower division courses required of Marine Science majors include Marine Science 20, Environmental Studies 10, Chemistry 10AB and 11AB, Biology 21 and 21L, Physics 42, 43 (or 50, 51), and Mathematics 51. Mathematics 51 is recommended for students who anticipate going to graduate school.

## The Major:

The major is made up of a core of Marine Science courses and a concentration of courses in a particular discipline (called the "Pathway").

**The Marine Science Core:** Sixteen units of upper division courses in Marine Science are required. Marine Science 150, 151, and 152 are all laboratory courses.

Marine Science 150 - Geological Oceanography (4)

Marine Science 151 - Biological Oceanography (4) (cross-listed as Biology 151 and 151L)

Marine Science 152 - Physical and Chemical Oceanography (4)

Marine Science 153 - Law of the Sea (3) (cross-listed as Political Science 129)

Marine Science 195 - Senior Seminar (1)

**The Pathways:** The majority of upper division units in this major are associated with the particular pathway selected; the units differ according to the specific pathway. The pathways associated with this major are Biology, Chemistry, and Physics.

## 1. Biology Pathway (29 units):

Biology 19 - Introduction to Genetics, Evolution, and Ecology (3)

Biology 20 and 20L - Principles of Biology (4)

Biology 101 - Genetics (3)

Biology 150 or 142 - Invertebrate Zoology or Microbiology (4)

Biology 160 - Ecology (4)

Biology 178/178L or 180/180L - Animal or Cell Physiology (4)

Chemistry 101A/102A - Organic Chemistry (4)

Electives from Biology, Marine Science, or Environmental Studies (3) (appropriate to pathway; requires consent of advisor)

## 2. Chemistry Pathway (23 units):

Chemistry 20 - Analytical Chemistry (3)

Chemistry 101A/B - Organic Chemistry (6)

Chemistry 102A/B - Organic Chemistry Lab (2)

Chemistry 110A - Physical Chemistry (3)

Chemistry 150 - Chemical Ecology (3)

Electives from Chemistry, Marine Science, or Environmental Studies (6) (appropriate to pathway; requires consent of advisor)

## 3. Physics Pathway (24-26 units):

Physics 50/51 - Introduction to Physics I and II (instead of Physics 42/43 above)

Physics 52 - Introduction to Physics III (3)

Marine Science 177 - (=Physics 177) Fluid Mechanics (3)

Marine Science 179/179L - (=Physics 179/179L) Atmospheric Science (4)

## Take two courses from the following:

Physics 120 - Electronics (4)

Physics 124 - Electromagnetic Theory I (3)

Physics 125 - Electromagnetic Theory I (3)

Physics 127 - Analytical Mechanics (4)

Mathematics 51/52 - Calculus II and III (8)

Marine Science 1 and 21 satisfy General Education requirements and need no prerequisites. However, because Marine Science 21 is required for the Ocean Studies major, preference in enrollment will be given to Ocean Studies majors for that course.

Marine Science 131 and 132 are designed for Ocean Studies majors (see the Ocean Studies program in this *Bulletin*) and are not available for major's credit for students majoring in Marine Science. All other courses in this listing, except Marine Science 153, 157, 174, 193, 195, 198, and 199 are designed for Marine Science majors or others having the necessary prerequisites.

## The Minor:

Because of the prerequisites and orientation of the courses in Marine Science, this minor is intended for students majoring in natural sciences, mathematics, or computer science. Given the nature of the majors this minor is designed to accompany, students should be aware that a Marine Science minor with many of the appropriate majors represents a difference in emphasis, not a substantial reduction in units from the Marine Science major with the corresponding pathway. A minimum of 18 units outside the major are required, including:

## Lower division preparation:

Marine Science 20 and two of the following:  
Environmental Studies 10 and/or Biology 21 and/or Chemistry 10B, 11B and Physics 43 or 51

## Upper division core:

Two of the following:

Marine Science 150 - Geological Oceanography (prerequisite: Environmental Studies 10)

Marine Science 151 - Biological Oceanography (prerequisite: Biology 21)

Marine Science 152 - Physical and Chemical Oceanography (prerequisites: Chemistry and Physics)



**RECOMMENDED PROGRAMS OF STUDY**

The following recommended programs of study are examples of how courses may be arranged in any of the three anticipated pathways described above. They do not represent the only combination of courses possible; students are encouraged to discuss their curriculum schedules with their advisors as early in their careers as possible.

**— BIOLOGY PATHWAY —  
FRESHMAN YEAR**

Semester I	Semester II
ENVI 10 (4)	MARS 20 (4)
Biology 19 (3)	Biology 20/20L or 21/21L (4)
Chem. 10A (3)	Chem. 10B (3)
Chem. 11A (1)	Chem. 11B (1)
GE or Electives (3-6)	GE or Elective (3-4)

**SOPHOMORE YEAR**

Semester I	Semester II
Biology 21/21L (4) or Biology 20/20L (4)	MARS 151 (4) Biology 101 (3)
Physics 42 (4)	Physics 43 (4)
GE or Electives (6-8)	GE or Electives (3-6)

**JUNIOR YEAR**

Semester I	Semester II
MARS 150 (4)	Biology 160 or MARS 152 (4)
Biology 142 or 150 (4)	Biology 178/178L or Biol. Elective (4)
Chem. 101A (3)	MARS 153 (3)
Chem. 102A (1)	GE or Elective (3-6)
GE or Elective (3-5)	

**SENIOR YEAR**

Semester I	Semester II
Biology 180/180L or Biol. Elective (4)	MARS 152 or Biology 160 (4)
MARS 195 (1) or Elective	MARS 195 (1) or Elective
GE or Electives (9)	GE or Electives (9)

**— CHEMISTRY PATHWAY —  
FRESHMAN YEAR**

Semester I	Semester II
ENVI 10 (4)	MARS 20 (4)
Chem. 10A (3)	Chem. 10B (3)
Chem. 11A (1)	Chem. 11B (1)
GE or Electives (6-8)	Biology 21/21L (4) GE or Electives (3-4)

**SOPHOMORE YEAR**

Semester I	Semester II
Chem. 101A (3)	Chem. 101B (3)
Chem. 102A (1)	Chem. 102B (1)
Chem. 20 (3)	Physics 43 (4)
Physics 42 (4)	GE or Electives (6)
GE or Elective (3)	

**JUNIOR YEAR**

Semester I	Semester II
Chem. 110A (3)	Chem. 150 (3)
MARS 150 (4)	MARS 152 (4)
MARS 151 (4)	MARS 153 (3)
GE or Electives (4-5)	GE or Electives (5-6)

**SENIOR YEAR**

Semester I	Semester II
MARS or Chem. Electives (6)	MARS 195 (1)
GE or Electives (9)	MARS or Chem. Elective (3)
Research (1-2)	GE or Electives (9-10)

**— PHYSICS PATHWAY —  
FRESHMAN YEAR**

Semester I	Semester II
ENVI 10 (4)	Chem. 10B (3)
Mathematics 50 (4)	Chem. 11B (1)
Chem. 10A (3)	MARS 20 (4)
Chem. 11A (1)	Mathematics 51 (4)
GE or Electives (3)	Physics 50 (4)
	GE or Electives (3-6)

**SOPHOMORE YEAR**

Semester I	Semester II
Physics 51 (4)	Physics 52 (4)
Mathematics 52 (4)	Biology 21/21L (4)
GE or Elective (6-9)	GE or Electives (3-6)

**JUNIOR YEAR**

Semester I	Semester II
MARS 150 (4)	MARS 152 (4)
Physics Elective (3-4)	MARS 153 (3)
GE or Electives (6-8)	MARS 179/179L (4)
	GE or Electives (3-6)
	GE or Electives (3-6)

**SENIOR YEAR**

Semester I	Semester II
MARS 151 (4)	Physics Electives (3-4)
MARS 177 (3)	MARS 195 (1)
GE or Electives (9)	GE or Electives (12)

**COURSES****1 Physical Aspects of the Ocean (3)**

The chemistry and physics of sea water, its circulation and physical properties; tides; currents; waves; and shoreline processes will be studied. The topography and geology of the ocean basin and the distribution and nature of marine sediments will also be studied. This course will satisfy the General Education requirement for a physical science and, when a laboratory is offered as a part of the course, for a General Education laboratory course, but will not satisfy the requirements of either the Marine Science or Ocean Studies major without the consent of the director of the program. Three or two lectures and one laboratory or field experience per week. (Every semester)

**20 Introduction to Physical Oceanography (4)**

The chemistry and physics of sea water, its circulation and physical properties; tides; currents; waves; shoreline processes; and the topography of the ocean basin will be studied. This course is intended for students majoring in either Marine Science or Ocean Studies. Three lectures and one laboratory per week. Prerequisite: Chemistry 3 or 10A or consent of instructor.

**21 Introduction to Marine Biology (4)**

An introduction to the organisms in the ocean, including their phylogenetic and ecologic interrelationships. Biological principles and processes that are basic to all forms of life in the ocean will be stressed. This course will satisfy the General Education requirement for a life science and for a laboratory course and is a required course in the Ocean Studies major; however, it will not satisfy the requirements of the Marine Science major without the consent of the director of the Marine and Environmental Studies Program. Three lectures and one laboratory per week. (Every semester)

**131 General Oceanography (4)**

An interdisciplinary study of physical, chemical, and biological processes in the ocean. Topics include: air-sea interactions; nutrient and trace element distributions; primary productivity; and the global carbon cycle. Interactions of biological communities with their chemical and physical environment such as ocean circulation patterns, waves, and tides will be emphasized. Three lectures and one laboratory per week. Prerequisites: Marine Science 20 and 21.

**132 Marine Geology and Geography (4)**

This course will provide an introduction to plate tectonics as a framework for understanding marine rocks and minerals, sediment distribution, natural resources, and ore deposits. Emphasis will be placed on: the influence of marine geological processes on population distribution and human activities, including Pacific Rim earthquake hazard; vulcanism, coastal erosion and deposition; and utilization of marine resources, such as off-



shore petroleum and ore exploitation. Three lectures and one laboratory per week; some weekend field trips required. Prerequisite: Marine Science 20.

### 138 Aquaculture (2)

An overview of (mainly) marine aquaculture worldwide. Specific local examples and guest lectures by local aquaculturists. Field trips to local aquaculture facilities may be required.

### 150 Geological Oceanography (4)

The origin and geologic history of the ocean basin, with a detailed investigation of the theory of plate tectonics. A study of the igneous and sedimentary deposits and resources of the ocean bed. Three lectures and one laboratory per week; some weekend field trips may be required. Prerequisites: Environmental Studies 10, Marine Science 20, and Mathematics 11.

### 151 Biological Oceanography (4)

An integrated study of marine organisms and their environments, stressing ecological, behavioral, and physiological relationships. Near shore, deep sea, and open ocean environments will be covered. A weekend field trip may be required. Three lectures and one laboratory per week. Prerequisite: Biology 21. Cross-listed as Biology 151 and 151L.

### 152 Physical and Chemical Oceanography (4)

An interdisciplinary, in-depth study of the physics and chemistry of ocean water, ocean circulation, waves, and tides. Three lectures and one laboratory per week. Prerequisites: Chemistry 10B/11B, Physics 43 or 51, Marine Science 20, and Mathematics 50.

### 153 Law of the Sea (3)

A study of the regimes of the sea, including fisheries and law enforcement and coastal management zones. The politics of ocean regulation will be examined with special attention to law of the sea negotiations involving strategic and economic prospects for the oceans. Cross-listed as Political Science 129.

### 157 Marine Environment (3)

A study of the oceans, their influence on the rest of the globe, and threats to their stability. Topics include: marine resources; conservation; global climate patterns generated by the seas; and pollution. Three lectures per week. Prerequisite: Marine Science 131 or 151 and 152 or consent of instructor.

### 168 Marine Ecology (3)

Discussions of the ecological relationships within the sea, including such topics as production, community structure, and biogeography. Communities discussed may range from the coast to the deep sea, and cover plankton, nekton, and benthon. Three hours per week consisting of lectures and seminars. Prerequisite: Biology 160 or concurrent enrollment. Cross-listed as Biology 168.

### 171 Near Shore Processes (3)

Physical and chemical processes which influence coastal sediment and water mass distribution and chemical composition. Topics include currents and ocean circulation patterns on the continental shelf, coastal erosion and deposition, river flux and its influence on the chemical composition of seawater, sediment transport, and chemical reactions in estuaries and bays. The impact of human activities on coastal areas will also be covered. Three lectures per week. Prerequisites: Marine Science 20, Chemistry 10B/11B, and Physics 42 or 50.

### 174 History of the Oceans and Climate (3)

Ocean-atmospheric interactions and their influence on global climate. Special emphasis will be placed on the causal mechanisms of paleoclimatic cycles, including variation in the earth's orbit, variations in solar radiation, albedo changes, and continental drift. Also included will be discussions of global climate change and its effects on the distribution of biological communities. Three lectures per week. Prerequisites: Environmental Studies 10, Marine Science 20, and Marine Science 21 or Biology 21.

### 177 Introduction to Fluids (3)

An introduction to the basic principles of fluids. This course will serve as an introduction to concepts used in physical oceanography and atmospheric science and other disciplines in which fluids are studied or utilized. Examples of applications to a broad range of disciplines (physics, engineering, earth sciences, and biology) will be developed. Three hours of lecture per week. Prerequisites: Physics 42-43 (or Physics 50-51) and Mathematics 50-51. Cross-listed as Physics 177.

### 179 Atmospheric Science (3)

A development of atmospheric science based upon the fundamental principles of the physical sciences. Topics include atmospheric composition, thermodynamics, radiation, cloud physics and dynamics. Three lectures per week. Prerequisites: Physics 43 or 51 and Chemistry 9 or 10A. Cross-listed as Physics 179.

### 179L Atmospheric Science Laboratory (1)

Laboratory and field work to accompany Marine Science 179. Prerequisite: Concurrent registration in Marine Science 179. Cross-listed as Physics 179L.

### 181 Optical Petrography (4)

The study of minerals, rocks, and soils in hand specimen and thin section. The main objective of this course is to impart an applied and theoretical knowledge of petrographic microscopy and the use of the polarizing microscope as a tool for the identification and classification of minerals and rocks. Topics will include origin, structure, and history of igneous and metamorphic rocks. Two lectures and two laboratories per week. Pre-

requisites: Environmental Studies 10 and Physics 43 or 51 or consent of instructor. Cross-listed as Environmental Studies 181.

### 184 Sedimentology and Stratigraphy (4)

Identification and classification of sediments, sedimentary rocks, and sedimentary depositional systems. Oceanic and terrestrial environments will be considered, as well as sedimentary history and paleobiogeography. Three lectures and one laboratory per week. Prerequisites: Environmental Studies 10, Marine Science 20; Marine Science 21 or Biology 21 recommended. Cross-listed as Environmental Studies 184.

### 188 Micropaleontology (4)

A survey of the biostratigraphy, paleoceanography, evolution and applications of microfossils. Special emphasis will be placed on radiolarian and foraminiferan microfossil groups. Two lectures and two laboratories per week. Some field trips. Prerequisite: Marine Science 21 or Biology 21 or consent of instructor.

### 191 Methods in Marine Science (1-3)

Training and practice in the gathering, analysis, interpretation, and communication of marine scientific data. Designed to extend and integrate the sampling and analytical procedures of marine science. Selected instrumentation and techniques, field experience, and laboratory time will be emphasized. Shipboard experiences, weekend, or extended field trips may be required. Course may be repeated for credit only upon approval of the director of the Marine and Environmental Studies Program.

### 193A-E Special Topics in Ocean Studies (2-4)

Topics of special interests and/or unique opportunity. Prerequisites: Upper division standing and consent of instructor or of the director of the Marine and Environmental Studies Program; other prerequisites may be listed in the Schedule of Classes.

### 194A-E Special Topics in Marine Science (2-4)

Topics of special interest and/or unique opportunity. Prerequisites: Upper division standing and consent of the instructor or pathway advisor.

### 195 Senior Seminar (1)

The techniques of seminar presentation will be studied by preparing and presenting individual seminars on topics of interest. Enrollment for credit is limited to and required of all senior students majoring in Marine Science and Ocean Studies.

### 196 Research (1-3)

Students develop and/or assist in research projects in various fields of marine science. Prerequisite: Consent of instructor. (Every semester)



### 198 Internship (1-3)

Experience in the practical and experimental application of marine science. Students will be involved in research projects conducted by agencies and institutions outside the university, such as state parks, government agencies, research facilities, or marine industries. Enrollment is arranged on an individual basis according to a student's interest and background, and is dependent on positions available and faculty approval. A maximum of three upper division units can be earned toward fulfillment of the requirements of the major. (Every semester)

### 199 Independent Study (1-4)

Independent study designed for individual student needs. Prerequisite: Consent of the director of the Marine and Environmental Studies Program. (Every semester)

# Mathematics

E. Clare Friedman, D.Phil., Chair

Dwight R. Bean, Ph.D.

William E. deMalignon, M.A.

Jane Friedman, Ph.D.

John H. Glick, Ph.D.

Stanley J. Gurak, Ph.D.

Stacy Langton, Ph.D.

Luby Liao, Ph.D.

Jack W. Pope, Ph.D.

Lukasz Pruski, Ph.D.

Lynne B. Small, Ph.D.

Virginia Stover, Ph.D.

Alphonse G. Zukowski, M.A.

The program in Mathematics has a threefold objective: to provide courses giving technical mathematical preparation to students in any field of academic endeavor; to provide liberal arts courses which will demonstrate our mathematical heritage from past ages, and point out the impact of mathematical thought and philosophy on our culture in this technological civilization; and to provide courses of advanced mathematical knowledge which will prepare students for graduate work or professional employment in mathematics or related areas.

### The Major:

In order to obtain a major in mathematics, the student must satisfy the General Education requirements as set forth in this *Bulletin* and complete the following courses:

Mathematics 50, 51, 52 (12)

Computer Science 50 (4)

Mathematics 114 (3)

Mathematics 121A(3)

Mathematics 121B or 140 (3)

Mathematics 124 or 156 (3)

Upper division mathematics electives (12)

Physics 50 and 51 (8)

## RECOMMENDED PROGRAM OF STUDY FRESHMAN YEAR

### Semester I

Preceptorial (3)

Mathematics 50 (4)

Comp. Sci. 50 (4)

GE or Electives (6)

### Semester II

Mathematics 40 (3)

Mathematics 51 (4)

Physics 50 (4)

GE or Electives (6)

## SOPHOMORE YEAR

### Semester I

Mathematics 52 (4)

Physics 51 (4)

GE or Electives (9)

### Semester II

Mathematics 40 (3)

Mathematics 114 (3)

GE or Electives (9)

## JUNIOR YEAR

### Semester I

Mathematics UD (6)

GE, Minor or

Electives (9)

### Semester II

Mathematics UD (6)

GE, Minor or

Electives (9)

## SENIOR YEAR

### Semester I

Mathematics UD (6)

GE, Minor or

Electives (9)

### Semester II

Mathematics UD (6)

GE, Minor or

Electives (9)

### The Minor:

Students may obtain a minor in mathematics by completing 18 units of mathematics. These units must include at least six units of upper division work as well as Mathematics 50, 51, and 52.

The Single-Subject Teaching Credential in Mathematics: **Changes in the state licensing requirements will take effect in January, 1995.** Course descriptions may be altered slightly to accommodate the new state requirements. Students interested in high-school teaching should consult with advisors in the Mathematics department and in the School of Education for the most up-to-date information.

## COURSES

### 10 Intermediate Algebra (3)

A survey of basic algebraic skills for students with insufficient mathematics preparation. This remedial course counts for "work-load credit" only. That is, its three units are counted as part of the student's load during the semester in which it is taken, and the grade earned in the course is included in the computation of the student's grade point average, but it does not satisfy any requirement for General Education, or for the major or minor in mathematics, and it does not count toward the 124 units required for graduation. (Every semester)

### 11 College Algebra (3)

Review of exponents, equations and inequalities; function notation, composition and inverses; linear, quadratic, polynomial, exponential, and logarithmic functions and their graphs. **Note: Placement exams must be taken within one year of starting this course.** Prerequisite: Mathematics 10 at USD with a grade of C- or better, or pass Level 1 mathematics placement exam. (Every semester)

### 12 Essentials of Trigonometry (1)

Definitions, solutions of right triangles, graphs, identities and inverse trigonometric functions. (Every semester)

### 14 Survey of Calculus (3)

A terminal mathematics course giving an introduction to the formulas and techniques of elementary differential and integral calculus. **Note 1: This course is not equivalent to Mathematics 50, and will not serve as a prerequisite to Mathematics 51.** **Note 2: Placement exams must be taken within one year of starting this course.** Prerequisite: Mathematics 11 with a grade of C- or better or pass Level 2 mathematics placement exam. (Every semester)

### 15 Introduction to Probability and Statistics (3)

Probability as a mathematical system; random variables and their distributions; confidence intervals; hypothesis testing; other topics in statistical inference. Prerequisite: Mathematics 11 or equivalent.

### 40 Logic for Mathematics and Computer Science (3)

Propositional calculus; first-order predicate calculus; mathematical proof; mathematical induction; fundamental set theory; relations and functions; applications to problems in mathematics and computer science. Prerequisite: Mathematics 11 or equivalent. **This course satisfies the Logic Competency Requirement.** (Every Spring)

### 50 Calculus I (4)

Fundamental notions of analytic geometry, differential and integral calculus with elementary applications; historical references. **Note: Placement exams must be taken within one year of starting this course.** Prerequisite: Mathematics 11 with a grade of C- or better, and Mathematics 12, or pass Level 2 mathematics placement exam. (Every semester)

### 51 Calculus II (4)

Transcendental functions; integration techniques; polar coordinates; infinite series; applications to geometry, mechanics, other sciences; historical references. Prerequisite: Mathematics 50 or equivalent. (Every semester)

### 52 Calculus III (4)

Calculus of several variables; partial derivatives; multiple integration; elements of



differential equations; applications; historical references. Prerequisite: Mathematics 51 or equivalent. (Every semester)

### 91 Mathematical Concepts for Elementary Teachers I (3)

Problem solving; sets; numeration systems; a development of the whole number system; geometric figures; and computers. **Note: This course does not count toward either the major or minor in mathematics.** It covers the mathematical content required by the California State Teacher Credentialing Frameworks. Prerequisite: Mathematics 11 or equivalent. (Every Fall)

### 101 Mathematical Concepts for Elementary Teachers II (3)

Measurement concepts; development of the real number system; algebra; geometric mappings; probability and statistics. **Note: This course does not count toward either the major or minor in mathematics.** It covers the mathematical content required by the California State Teacher Credentialing Frameworks. Prerequisite: Mathematics 91 or equivalent. (Every Spring)

### 103W Writing in Mathematics (3)

A course on writing as used by mathematicians, with emphasis on analyzing and writing mathematical proofs. The mathematical topics addressed will be drawn from several fields and will be accessible to students who have completed a year of calculus. **Note: Fulfills the upper division General Education writing requirement, but does not count towards the mathematics major or minor.** Prerequisite: Mathematics 52 or concurrent registration in Mathematics 52.

### 107W History of Mathematics (3)

Selected topics from the history of mathematics. The course will include a variety of writing assignments. Emphasis will be on the history of mathematical ideas, rather than on personalities or social background. **Note: This course may not be counted toward the upper division mathematics requirements of the Mathematics major or minor.** Prerequisite: Mathematics 52.

### 110A Applied Mathematics for Science and Engineering I (3)

Matrix algebra; ordinary differential equations; operational techniques. Prerequisites: Mathematics 51. Students may not take both Mathematics 110A and 119 for credit. (Every Spring)

### 110B Applied Mathematics for Science & Engineering II (3)

Partial differential equations; vector calculus; complex variables; introduction to numerical methods. Prerequisites: Mathematics 52; Engineering 15 or 16 or consent of instructor. (Every Fall)

### 114 Linear Algebra (3)

Systems of linear equations; matrix algebra and operations; vector spaces of three or more dimensions; linear independence; inner product spaces; linear transformations and their matrices; determinants; eigenvalues and eigen-vectors; brief introduction to canonical forms. Prerequisite: Mathematics 51 or consent of instructor. (Every Spring)

### 115 Theory of Numbers (3)

Divisibility; Euclidean algorithm; fundamental theorem of arithmetic; congruences; Fermat's theorem; Euler's function; Chinese Remainder Theorem; Diophantine equations; primitive roots; quadratic residues; reciprocity law; continued fractions. Prerequisite: Mathematics 52 or consent of instructor. (Fall, even years)

### 119 Ordinary Differential Equations (3)

Preliminary ideas; differential equations of the first and second order; linear equations with constant coefficients; operational techniques; simultaneous equations; series solutions, applications. Prerequisite: Mathematics 52. (Fall, even years)

### 120 Partial Differential Equations (3)

Preliminary notions; techniques for solving well-known partial differential equations of physics; orthogonal functions; applications. Prerequisite: Mathematics 119.

### 121A-121B Advanced Calculus (3-3)

A study of the foundations of real analysis, including the calculus of functions of one and several variables; infinite processes; convergence theory; and selected topics of advanced undergraduate analysis. Prerequisite: Mathematics 52. (121A: Fall, odd years; 121B: Spring, even years)

### 124 Topology (3)

Metric spaces; topologies; subspaces; continuity; separation axioms; compactness; connectedness. Prerequisite: Mathematics 52 or consent of instructor. (Fall, odd years)

### 125 Complex Function Theory (3)

Analytic function theory; power series; analytic continuation; conformal mapping; applications. Prerequisite: Mathematics 52

### 128 Geometry (3)

An introduction to an area of modern geometry. The specific topic will be chosen from the following: non-Euclidean geometry; differential geometry; projective geometry; or metric geometry; historical references. Prerequisite: Mathematics 52 or consent of instructor. (Spring, odd years)

### 131 Numerical Analysis (3)

Approximate computations and round-off errors; Taylor expansions; numerical solution of equations and systems of equations; numerical

integration; numerical solution of differential equations; interpolation; problem solving on the computer. Prerequisites: Mathematics 51 and Computer Science 50. Cross-listed as Computer Science 131. (Fall 1995, Spring 1997)

### 134 Combinatorics (3)

Principles of enumeration; finite difference calculus; generating functions; finite difference equations; principle of Inclusion and Exclusion; introduction to the theory of combinatorial graphs; applications to computer science. Prerequisite: Mathematics 51.

### 140 Probability and Mathematical Statistics I (3)

Probability axioms; conditional probability; discrete and continuous sample spaces; random variables and common distributions; jointly distributed random variables; central limit theorem. Prerequisite: Mathematics 52 or consent of instructor. (Spring, every year)

### 141 Probability and Mathematical Statistics II (3)

Statistical models; estimation; hypothesis testing; optimality; linear models; analysis of discrete data; nonparametric methods. Prerequisite: Mathematics 140. (Fall semester, every other year)

### 156 Algebraic Systems (3)

An introduction to groups; rings; integral domains; division rings; fields; vector spaces and algebras; applications of these systems to other branches of mathematics. Prerequisite: Mathematics 52 or consent of instructor. (Fall, even years)

### 181 Mathematical Logic (3)

Abstract structure of logical arguments; theory of the propositional and predicate calculus; selected topics in modern logic. Prerequisite: Mathematics 52 or consent of instructor.

### 194 Special Topics (3)

Topics of special interest chosen by the instructor. May be repeated for credit with the consent of the instructor. Prerequisite: Mathematics 52 or consent of instructor.

### 199 Independent Study (3)

Student reading and research in selected special topics; student presentations. May be repeated for credit once with a different topic. Prerequisite: Consent of instructor.



# Music

Marianne Richert Pfau, Ph.D., Coordinator  
Lily Hood Gunn, D.M.A.

The music curriculum affords a broad basis of study in music within the context of the liberal arts education. The major provides a thorough knowledge of the musical literature from the Middle Ages to the present through a balanced course offering in music theory, music history, and solo and ensemble performance. Depending upon the student's interest, emphasis can be given to any of these three areas.

The program provides an appropriate background for prospective candidates for advanced degrees who are preparing for careers as musicologists, composers, performers, music librarians, and teachers. It also prepares persons seeking a professional career in the music management field.

**The Major:** In order to obtain a major in music, the student must: satisfy the General Education requirements as set forth in this *Bulletin*; enroll in a total of 41 music units, 25 music units of which must be upper division work; and complete the following courses:  
Music 2, 3, 4, 5, 105, 108, 120A, 120B  
Two literature courses (to be chosen from Music 123, 124, 125, 126, 127, 128, 145)  
Presentation of a Senior project (Music 198, a recital, lecture/recital, or research project) or Internship (Music 193, for Music Management students)  
Keyboard Proficiency Exam  
One Performance Organization each semester (to be chosen from Music 62/162, 64/164, 65/165)  
Choral Scholars may satisfy this requirement through enrollment in Music 63/163  
Music Management students may satisfy this requirement in full or in part through enrollment in Music 193  
Students with Performance Emphasis must enroll in private lessons and pass juries in their instrument/voice each semester.

## The Certificate in Music Management:

A program designed to prepare the student for a career in music management. Requirements include a music major and a business minor enhanced by two upper division courses, one of which should be Business 130, three units of Music Management (Music 193), and an Internship (Music 197). Upon completion of all of the requirements with at least a "C" or better in upper division music courses (at least seven units of which must have been awarded at USD, including an internship), the student will be eligible for a Certificate of Music Management. The certificate will be awarded on the recommendation of the faculty supervisor.

## The Minor:

The requirements for a minor are Music 2, 3, 120A, 120B, one music literature course, and an additional three units in music.

## COURSES

### 1 Fundamentals of Music (3)

Basic elements of notation, rhythm, major and minor scales, interval recognition and triad construction. (Every semester)

### 2 Harmony I (3)

Elementary harmony; chords and their inversions, modulations, transpositions and an introduction to harmonic analysis. A test is available to determine qualifications to enter class. Prerequisite: Music 1 or its equivalent. (Every Fall)

### 3 Harmony II (3)

Continuation of Harmony I of advanced theory and harmony. Study of the Italian, German, French and Neapolitan 6th chords, introduction to twelve tone system. (Every Spring)

### 4 Counterpoint (3)

The study of melodic design and the art of combining melodies, based on the practices of 18th century polyphony. Prerequisites: Music 2, 3. (Every Fall)

### 5 Twentieth Century Harmony (3)

Continued analysis with emphasis on 20th century melodic and harmonic techniques and devices. Prerequisite: Music 4 or equivalent. (Every Spring)

### 20 Class Piano Instruction (1)

Fundamental keyboard experience through the study of notation, keys, scales, chords, simple song and piano literature. Meets twice weekly. (Every semester)

### 21 Intermediate Class Piano (1)

Functional skills for piano, including sight reading, harmonization, transposition, improvisation. This course will prepare the music major for Piano Proficiency. (Every semester)

### 22 (122) Class Voice (1)

Voice study in a classroom environment for beginners. The students will be introduced to correct breathing techniques, vocal production and sight reading.

### 30 Introduction to Music (3)

A GE course introducing students to all aspects of Western classical music, and to some non-western traditions. Masterpieces by major composers from the Middle Ages to the present. Intense listening, concert visits, reading, written critiques of recorded and live music, visiting artists, and live musical demonstrations. (Every semester)

## RECOMMENDED PROGRAM OF STUDY

### FRESHMAN YEAR

Semester I	Semester II
Music 2 (3)	Music 3 (3)
GE or	GE or
Electives (12-13)	Electives (12-13)

### SOPHOMORE YEAR

Semester I	Semester II
Music 4 (3)	Music 5 (3)
Music 120A (3)	Music 120B (3)
GE or	GE or
Electives (9-10)	Electives (6)

### JUNIOR YEAR

Semester I	Semester II
Music 108 (3)	Music 144 (3)
Music UD (3)	Music 105 (3)
GE, Minor or	Music UD (3)
Electives (6-7)	GE, Minor or Electives (6-7)

### SENIOR YEAR

Semester I	Semester II
Music, UD (6)	Music UD (6)
GE, Minor or	GE, Minor or
Electives (9-10)	Electives (9)
	Senior Project (1)

### 31-40 (131-140) Private Music Lessons (1)

An additional fee of \$300 covers the studio charge (see p. 18 in this *Bulletin*). Students must provide instruments (except for piano, harpsichord, percussion, organ). Each semester a jury before music faculty will constitute part of the final grade.

- 31: Piano
- 32: Voice
- 33: Strings
- 34: Woodwinds
- 35: Brass
- 36: Percussion
- 37: Harp
- 38: Historical winds
- 39: Guitar
- 40: Harpsichord

### 45 Basic Skills (3)

Learning music notation, rhythm and chord structure through the recorder, piano and auto-harp. (Every semester)

### 62 (162) University Choir (1)

A mixed choral ensemble devoted to the study and performance of a wide variety of choral literature from all historical style periods. Prerequisite: Consent of instructor.



**63 (163) Choral Scholars (1)**

A highly selective vocal ensemble devoted to the intensive study of choral and vocal literature from all style periods. Activities include show choreography, vocal jazz and frequent tours throughout the Western United States. Prerequisite: By audition

**64 (164) Opera Workshop (1)**

Training in preparation of productions of operas and musicals; coaching, directing, staging, and lighting culminating in full performance.

**65 (165) USD Symphony (1)**

The study and public performance of orchestral music. (Every semester)

**93 (193) Music Management (1-2)**

Study of music management techniques including concert production, rehearsal preparation, publicity, theatre management and fundraising. One class meeting per week in addition to placement with one of the campus performing organizations. Lower division: 1 unit; upper division: 2 units per semester. May be repeated for credit. Prerequisite: Consent of instructor and director of performing organization.

**97 (197) Music Management Internship (1-3)**

Practical experience to be gained through service to university and community performing organizations. Upper or lower division credit and number of units credit to be decided based on standing and experience of student as well as amount and difficulty of proposed service. May fulfill Senior Recital requirement. Prerequisite: Consent of instructor.

**105 Form and Analysis (3)**

A study of the basic elements characterizing musical form; its structure, style, and development through the musical periods. (Every Spring)

**107 Composition (3)**

Practical application of basic compositional skills through a study of contemporary techniques. Original work by the student in the small forms, both vocal and instrumental.

**108 Basic Orchestration (3)**

Exercises in analysis of orchestral scores and practical orchestration. (Every Fall)

**120A Music History I: 850-1750 (3)**

Music in society from Middle Ages to the late Baroque: composers; evolution of styles and genres; instruments; historical performance practices; present-day significance of early music; cultural; historical; social; and political conditions of the art; cross-cultural comparisons; informed listening; library research; writing projects; concert visits. (Every Fall)

**120B Music History II: 1750-Present (3)**

Musical styles and composers from the early Classical period through the present: changing functions of music in society; position and self-understanding of the artist; historical conditions; tradition and individualism; cross-cultural influences; the perpetual search for novelty in sound; informed listening; library research; writing projects; concert visits. (Every Spring)

**123W Music Literature of the Middle Ages and the Renaissance (3)**

A detailed study of sacred and secular music from the 9th through the 16th century, with consideration of historical, cultural, and political context. The impact on music of medieval philosophy, esthetics, religion, science; the patronage system; the Age of Humanism; the Age of Discovery. A writing course that includes informed listening, live concerts, and library research. (Every other Fall)

**124 Music Literature of the Baroque and Classical Periods (3)**

Study of vocal and instrumental literature from Bach to Beethoven; intellectual and historical setting; music as expression of the cultural conditions of its time; composition as craft; the shared musical language of the Viennese Classical Style; study through listening, reading, writing, videos, live concerts. (Every other Spring)

**125 Music Literature of the Romantic Period (3)**

Vocal and instrumental works from the early 19th century age of expression through Nationalism and Impressionism; opposing trends from miniature to the grandiose, from intimate to mass music, from craft to personal inspiration; the cult of the genius. Late Beethoven to Debussy. Listening, reading, writing, live concerts. (Every other Fall)

**126 Music Literature of the Twentieth Century (3)**

The rebellion against Romanticism, pre-WWII styles, Expressionism; atonality; serial music; non-Western influences; post-1945; the age of anxiety; experimentalism; neo-Romanticism; new frontiers in electronic and mixed media; minimalism. Stravinsky to Glass. Listening, reading, writing, live concerts. (Every other Spring)

**127 History of Sacred Music in the West and Beyond (3)**

The main liturgical genres from the Middle Ages to the present; roots of Christian liturgical music in the Judaic traditions; communal and solo sacred music; chants of various cultures; Catholic and Protestant church music; Russian Orthodox; Tibetan; and other cultures' musical liturgies. Listening, reading, writing, field trips.

**128 History of Opera (3)**

The distinction in dramatic music between the Baroque and the classical style; the opera reform; the rise of nationalism in operatic production of the 19th century; and contemporary opera.

**129 History of Jazz (3)**

A music literature class tracing the origin and development of jazz through lecture, reading, recording, and live performances.

**142 Choral Conducting (3)**

Introduction to basic conducting skills, including beat patterns, hand positions, and body language. Review of techniques specific to conducting singers.

**143 Instrumental Conducting (3)**

Practical experience in score reading and basic instrumental conducting.

**144 Dictation and Ear Training (3)**

A practical application of fundamental skills which will emphasize the ability to correctly identify and notate intervals, chords, melodic lines and rhythmic patterns by ear. Sight singing will be stressed.

**145 Music of Other Cultures (3)**

A survey of traditional and folk music of Western and non-Western cultures.

**167 String Literature (3)**

A study through records and live performances of the literature for violin, viola, cello, and string bass.

**168 Vocal Literature (3)**

A study through records and live performances of the literature for voice.

**169 Piano Literature (3)**

A study through records and live performances of the literature for piano.

**194 Special Topics (3)**

An examination of selected topics in Western music, in the musical history of other cultures, or in music therapy. May be repeated for credit when the topic changes.

**198 Senior Project (1)**

Under the direction of a faculty supervisor, all music majors will make a public presentation during the senior year. The recital program or project topic must be approved by the faculty supervisor and the finished presentation must pass a faculty jury before the actual recital or project may take place.

**199 Independent Study (1-3)**

Individual work in theory, composition, musicology, or liturgical music with the approval of the music faculty. For music majors only.



# Ocean Studies

Hugh I. Ellis, Ph.D., Director  
Marine and Environmental Studies Program

The Ocean Studies major, offered by the Marine and Environmental Studies Program, represents an interdisciplinary approach to the marine world from both a natural science and a social science perspective. Concentrating on the Pacific Basin and the peoples and economies of the Pacific Rim, this major is intended to provide a scientific understanding of the marine world for students going on to work in the areas of marine policy and management, law of the sea, natural resources, and Pacific Rim economics. Students majoring in Ocean Studies will be prepared to go on to graduate studies in the social sciences or business, to law school, or to positions in marine and/or international business. Those students who wish to go directly into business should consider a minor in the School of Business Administration.

The curriculum includes a core of upper division science courses and a range of social science courses. To develop sufficient depth in a particular social science, a concentration is required in one of the following areas: Anthropology, Economics, History, Political Science, or Psychology. A concentration is achieved by taking 12 additional units in any of these fields except Psychology, where 18 units are required. At least half of the units in the concentration should be upper division. A listing of the specific courses required in the concentration is available from the director of the program or the concentration advisors. The student majoring in Ocean Studies is encouraged to select an advisor from his or her area of concentration as soon as possible. A list of advisors is available from the director.

## Preparation for the Major:

Lower division courses required of Ocean Studies majors include Marine Science 20 and 21, Chemistry 3, Political Science 20, History 16, Anthropology 20, and Economics 12. Economics 11 is also recommended.

## The Major:

Upper division requirements of the Ocean Studies major include a core of 18 units in Marine Science and Environmental Studies and 18 units in a variety of social sciences that relate to the Pacific Rim. In addition, a concentration of 12-18 units are required in one of the areas listed above.

## The Core:

Marine Science 131 - General Oceanography (4)  
Marine Science 132 - Marine Geology and Geography (4)

## RECOMMENDED PROGRAM OF STUDY

The following recommended program is an example of how courses may be arranged in Ocean Studies. They do not represent the only combination of courses possible; students are encouraged to discuss their schedules with their advisors as early in their careers as possible. **Note:** In the recommended program below, "Conc." refers to the specific area of concentration.

### FRESHMAN YEAR

Semester I	Semester II
MARS 21 (4)	MARS 20 (4)
Chem. 3 (3)	History 16 (3)
Pol. Sci. 20 (3)	Conc. Elective (3)
GE or Electives (6)	GE or Electives (6)

### SOPHOMORE YEAR

Semester I	Semester II
MARS 131 (4)	MARS 132 (4)
Economics 12 (3)	History 186 (3)
Anthro. 20 (3)	Pol. Sci. 130 (3)
GE or Electives (6)	GE or Electives (3-6)

### JUNIOR YEAR

Semester I	Semester II
MARS 157 (3)	MARS 153 (3)
Anthro. Elective (3)	ENVI 105 (3)
Conc. Elective (3)	History Elective (3)
GE or Electives (6)	GE or Electives (6)

### SENIOR YEAR

Semester I	Semester II
Pol. Sci. Elective (3)	MARS 195 (1)
Conc. Elective (3)	Conc. Elective (3)
GE or Electives (9)	GE or Electives (9)

Marine Science 153 - Law of the Sea (cross-listed as Political Science 129) (3)  
Marine Science 157 - Marine Environment (3)  
Marine Science 195 - Senior Seminar (1)  
Environmental Studies 105 - Environmental Assessment (3)

## The Social Sciences:

Political Science 130 - International Political Economy (3) or Economics 133 - International Economics (3)  
History 186 - Pacific Ocean in History (3)

Also one of the following Political Science courses:

Political Science 127 - International Law (3)  
Political Science 189 - Politics in Japan (3)  
Political Science 190 - Politics in China (3)

Also one of the following Anthropology courses:

Anthropology 128 Pacific Cultures: Australia, Melanesia (3)  
Anthropology 130 Pacific Cultures: Micronesia, Polynesia (3)

Also one of the following History courses:

History 164 - Topics in Asian History (3)  
History 165 - History of China (3)  
History 166 - History of Japan (3)

And a concentration in one of the areas below:

Anthropology—12 units\*  
Economics—12 units\*  
History—12 units\*  
Political Science—12 units\*  
Psychology—18 units\*

## The Minor:

The minor in Ocean Studies is available to students majoring in any field except the natural sciences (that is, Biology, Chemistry, Physics, and Marine Science). A minimum of 18 units are required, including:

Lower division preparation - Chemistry 3, Marine Science 20 and Marine Science 21.

Upper division core - Marine Science 131 and one of the following: Marine Science 132 or 157.

# Paralegal Studies Certificate Program

Susan M. Sullivan, M.A., Director

The Paralegal Studies Program is offered for students who are interested in law-related careers. The program can provide useful insights for students interested in law school, as well as give a basis for future decisions about their legal career.

Lawyers' assistants are trained members of a legal team who work under the supervision of attorneys. They are involved in most phases of legal services, including interviewing of clients, legal research, accountings and the drafting of documents. Graduates of the program are employed by law firms, banks, corporations and government agencies.

\*At least half of these units should be upper division.



## RECOMMENDED PROGRAM OF STUDY

## JUNIOR YEAR

Semester I  
English 175  
or comparable  
writing course

Semester II  
Paralegal Studies 100  
Paralegal Studies 105

## SENIOR YEAR

Semester I  
Paralegal Studies  
120, 130, or  
150

Semester II  
Paralegal Studies 197

Students who successfully complete the program receive a certificate upon their graduation from the University. Employment assistance is also available to graduates. Pre-employment workshops aid the student in preparing for the job search.

The program has been approved by the American Bar Association, and is offered in cooperation with the National Center for Paralegal Training.

Students must formally apply for admission to the program and be accepted before they may register for any Paralegal Studies courses. To be considered for the program, students must have achieved second semester junior standing at USD and a grade point average of at least 3.0. All courses must be taken for a letter grade.

All courses are taught by practicing attorneys, each of whom has experience in his or her respective field.

The undergraduate certificate program in Paralegal Studies includes 18 units of course work. All students in the program must complete Paralegal Studies 100, 105, and 197. English 175 or an upper division English Literature course is a prerequisite for the courses. In addition, each student selects one specialty course from Paralegal Studies 120, 130, or 150.

## COURSES

## 100 Overview of the Legal System (2)

This course will familiarize students with the nature, meaning and source of law; the organization of the legal system and the legal profession; law office procedures; professional ethics; and areas not covered in the specialty.

## 105 Legal Research (2)

Students will develop the skills necessary to do legal research by studying the structure of state and federal courts, as well as learning how to use primary and secondary sources of law; judicial reports; case findings; annotated law reports.

## 120 Business and Environmental Law (9)

This course will provide students with an understanding of the laws, procedures and skills that are the foundation of environmental practice. This segment will familiarize students with the major environmental laws affecting business, development, and the management of natural resources. Particular emphasis will be given to issues impacting real estate transactions or development. The course will look at strategies for complying with regulations, supporting environmental litigation, and working within a regulatory agency.

## 130 Civil Litigation (9)

Students will learn how to: prepare case profiles based on information in files; read attorney briefs; check accuracy of the information in the litigation file; organize and index documents obtained through discovery; interview witnesses; trace physical evidence; examine public records; and make preliminary drafts of interrogatories and depositions.

## 150 General Litigation (9)

This specialty will include theory and practical skills in the areas of civil and criminal litigation, family law, and probate. Civil and criminal litigation will include both federal and state court rules and will emphasize procedures for processing cases through the court system. State court practice will be based on California law, but with sufficient understanding to be adapted to other states. Family law and probate will be based on California law.

## 197 Internship (2)

Students are placed in law offices, legal clinics, government agencies and financial institutions to gain direct experience in working in legal situations.

## Philosophy

Michael F. Wagner, Ph.D., Chair  
H.E. Baber, Ph.D.

Jack S. Crumley II, Ph.D.

John Donnelly, Ph.D.

Michelle Gilmore Grier, Ph.D.

Lawrence M. Hinman, Ph.D.

Patrick J. Hurley, Ph.D., J.D.

Linda Peterson, Ph.D.

Gary E. Jones, Ph.D., J.D.

Reverend James W. McGray, Ph.D.

Rodney G. Pepper, Ph.D.

Ann L. Pirruccello, Ph.D.

Dennis A. Rohatyn, Ph.D.

Reverend William L. Shipley, Ph.D.

Joia Lewis Turner, Ph.D.

The question "What is Philosophy?" is itself a central inquiry in the study of philosophy. Some view philosophy as an analytical study of concepts; others view it more etymologically as a

search for wisdom; and others view it as speculation upon the principles governing human nature and destiny. Philosophy thus includes the study of logical thinking, the practice of rational investigation and understanding, the utilization of holistic imagination, and the application of practical wisdom. In short, philosophy is essentially a rational, synoptic, and practical discipline.

The Philosophy Department at USD is *pluralistic*, covering all significant historical periods and most major philosophical methods. The USD Philosophy Department has a deep and special concern for the study of ethics, values, and the moral life. Additionally, Philosophy students at USD can expect to be exposed to perennial epistemological, metaphysical, and theological issues and theories in philosophy — both as these are discussed in the classical texts of great philosophers but also in their contemporary treatment.

## Career Opportunities &amp; Advising

The intellectual enthusiasm which philosophy inspires in its students makes graduate work in philosophy, perhaps followed by teaching, a natural aspiration for many philosophy majors. Accordingly, providing a solid preparation for graduate level work in philosophy, or in another Humanities or related discipline, is one goal of the Philosophy Department. At the same time, students of philosophy find themselves well prepared for a variety of other careers as well. Statistically, Philosophy majors perform exceptionally well on the LSAT and GMAT examinations, for example; and philosophers are found in top positions in such diverse areas as business, computers, government, public administration, publishing, and many other career areas. The specialized knowledge required in many careers can be acquired from a few elective courses or on the job. Indeed, employers in many career areas are increasingly more interested in a person's basic skills, for example, in writing and communicating, in generating and logically organizing ideas, in formulating and resolving qualitative as well as quantitative problems, and in his or her adaptability to changing circumstances and knowledge. An education in Philosophy — as also with other Liberal Arts areas — can foster these sorts of skills to a high degree. Finally, apart from the many ways in which philosophy students can utilize (and have utilized) their Philosophy degree, it is well to recall the Socratic adage, which inspires all of philosophy, that the unexamined life is not worth living.

Students considering a major or minor in philosophy may discuss their program and interests with any member of the Philosophy Department, or contact the department office for the designated Philosophy advisor(s).

**Note:** Majors are encouraged to complete their lower division history of philosophy requirements as soon as possible after declaring their major.



**RECOMMENDED PROGRAM OF STUDY****FRESHMAN YEAR**

Semester I	Semester II
Preceptorial (3)	Philosophy 70, 71, 72,
Philosophy 1 (3)	73, or 74 (3)
GE or Electives (9)	GE or Electives (12)

**SOPHOMORE YEAR**

Semester I	Semester II
Philosophy 70, 71, 72, 73	Philosophy 70, 71,
or 74 (3)	72, 73 or 74 (3)
GE or	GE or
Electives (12)	Electives (12)

**JUNIOR YEAR**

Semester I	Semester II
Philosophy 110, 111,	Philosophy 110, 111,
112, or 113 (6)	112, or 113 (6)
Philosophy UD (3)	GE or Electives (9-11)
GE or Electives (9-10)	

**SENIOR YEAR**

Semester I	Semester II
Philosophy 120 (3)	Philosophy 121 or 162 (3)
Philosophy UD (3)	Philosophy UD (3)
GE or Electives (10)	GE or Electives (9-11)

**The Major:**

The student must satisfy the General Education requirements as set forth in this *Bulletin* and complete the following courses:

Logic course (Philosophy 1, 2 or 100) and three of the following five courses: 70, 71, 72, 73, or 74 for a total 12 units; Philosophy 120; either 121 or 162; three of the following four courses: 110, 111, 112, 113; and nine units of upper division philosophy electives, at least six of which are not to be taken from the 130-148 sequence, for a total of 24 units.

**The Minor:**

Eighteen units, at least nine of which must be upper division.

**A Special Note for Students Interested in Law**

The Philosophy Department has paid special attention to the needs and interests of students interested in law, whether as a career option or as an area of philosophical investigation in its own right. Legal Studies is a fundamental, perennial area of inquiry and study in philosophy; and several members of the USD Philosophy Department include aspects of legal studies among their areas of expertise. Legal Studies is also an expanding area of interest among USD philosophy students, especially those considering law school. Members

of the department holding joint degrees in Philosophy (Ph.D.) and Law (J.D.) and other Philosophy faculty regularly offer courses in Political Philosophy, Philosophy of Law, Legal Reasoning, Legal Ethics, and other courses bearing upon socio-political and legal theory and practices. These courses, when taken together with the major's particular requirements in Logic and other areas of Philosophy, provide a rigorous program of legal studies in Philosophy for our students.

No particular courses are designated as requirements for a minor in Philosophy (see Minor requirements above). However, Philosophy minors interested in legal studies, whether in its own right or in connection with a pre-law aspiration, might consider Philosophy 133, 160, and either 161 or 162 when completing the nine upper division units required for the minor.

Majors or minors interested in Legal Studies offerings in Philosophy are encouraged to contact members of the department holding joint Ph.D and J.D. degrees for additional advising.

**COURSES****1 Introduction to Logic (3)**

The study of arguments, including basic principles of traditional logic together with an introduction to modern sentential logic. Topics include recognizing arguments, premises, conclusions, induction and deduction, fallacies, categorical syllogisms, sentential inference forms. (Every semester)

**2 Basic Symbolic Logic (3)**

Sentential and Predicate Logic. Topics include symbolization, truth tables, truth trees, and derivations (natural deduction). Emphasis will be placed upon applications of this formal system to statements and arguments in ordinary language.

**10 Introduction to Philosophy (3)**

A basic orientation course treating the principal problems of philosophy, such as knowledge, human nature, values, nature, God, etc. A historical approach may also be used as a means of further clarification of the topics being discussed. (Every semester)

**11 Philosophy of Human Nature (3)**

A study of the basic activities, powers, and human nature. Topics may include consciousness, freedom, habits, body, and emotions. (Every semester)

**12 Philosophy and Literature (3)**

An examination of the philosophical implications and themes contained in various works and genres of fiction. Questions such as free-will/determinism, love, justice, death, and the meaning of life, the best (or worst) of all possible worlds, the religious dimension of life, and the role of the writer or intellectual in society will be discussed.

**14 Philosophy and Technology (3)**

Technology is the art of rational problem-solving. Philosophy is the art of asking questions. The questions we shall raise include: What is science? (When) are scientific claims true? Is science relevant to art, religion, or everyday experience? Can we trust applied science (technology) to make life easier or less dangerous? In a nuclear era, is technology itself the problem? Is "alternative technology" an alternative? Does our survival depend on technology or its absence? Readings from classical and contemporary sources.

**70 History of Ancient Philosophy (3)**

Greek philosophy from the pre-Socratics through Plato, Aristotle, and later Hellenistic thought culminating in Plotinus.

**71 History of Medieval Philosophy (3)**

Origins of the medieval period; St. Augustine, St. Anselm, Abelard, scholasticism in the 13th century, St. Thomas Aquinas, Duns Scotus, and the end of the medieval era as represented by Occam and the growth of nominalism.

**72 History of Classical Modern Philosophy (3)**

An introduction to the development of European philosophy from the 16th to the 19th century, with an emphasis on Continental Rationalism, British Empiricism, and German Idealism.

**73 Twentieth Century Analytical Philosophy (3)**

An introduction to the main currents of late 19th and 20th century Anglo-American philosophy, including such movements as logical positivism and linguistic analysis and recent issues such as the analytic-synthetic distinction, ontological relativity, and theories of meaning.

**74 Twentieth Century Continental Philosophy (3)**

An introduction to the main currents of late 19th and 20th century continental thought, including Marxism, phenomenology, existentialism, critical theory, structuralism, and recent developments such as poststructuralism, semiotics and deconstructionism.

**75 Oriental Philosophy (3)**

An examination of the major traditions, systems and schools in India, China, and Japan. Readings from classical and modern texts. Cultural sources of philosophic beliefs. Comparisons between Eastern and Western thought.

**76 American Philosophy (3)**

A survey extending from the Colonial Period through the end of World War II. Emphasis on such topics as the Puritan controversy over predestination, the impact of Darwin, the advent of pragmatism, the ending of the "Golden Age." Authors to be studied include Edwards, Emerson, Wright, Peirce, James, Royce, Dewey, and Santayana.





### 100 Intermediate Symbolic Logic (3)

This course will focus on symbolization, syntax, semantics, and derivations for predicate logic. It will include some metatheory such as soundness and completeness proofs.

### 105 Automated Reasoning (3)

Topics from artificial intelligence are studied philosophically, and are brought to life by means of a logic programming language. The aim is to show how computers seem to reason. An underlying question is whether it is possible for computers not merely to simulate intelligence but to behave intelligently.

### 110 Metaphysics (3)

An investigation of the ultimate philosophical commitments about reality. Representative figures in the history of philosophy may be considered and analyzed. Topics selected may include the basic components of reality, their relation to space, time, matter, causality, freedom, determinism, the self, and God.

### 111 Philosophy of Knowledge (3)

An examination of the nature and scope of human knowledge, including a consideration of

\*Fulfills General Education Ethics requirement

such topics as scepticism, theories of meaning, analyticity, belief, evidence, certainty, truth, perception, memory, and the problem of other minds.

### 112 Philosophy of God (3)

A study of the existence and nature of God. Discussion of the ontological, cosmological, and teleological arguments; topics may include atheistic challenges concerning divine benevolence, omnipotence, omniscience and creation ex nihilo; logical positivism and religious meaning; miracles; the person and immortality; religion and morality.

### 113 Philosophy of Mind (3)

The mind-body problem, the analysis of mental state concepts and the problem of personal identity. Topics which may be discussed include: the nature of mind; survival and disembodied existence; theory of action; free will and determinism; psychological explanation and artificial intelligence.

### 114 Philosophy of Language (3)

Language is a fundamental medium by which we interact with others and the world.

How words come to have the meanings that they do, refer to objects, express truths, and affect the meanings of other words and truth values are perennial questions in philosophy. These issues have become even more pronounced in 20th century philosophy. Specific topics may include: language and reality; language and psychology; referential theories of meaning; ideal languages; meaning as use; private languages; truth-conditional theories of meaning; descriptive and causal theories of reference and of linguistic competence and performance; verificationism; and/or an introduction to modal semantics.

### 115 Philosophy of Natural Science (3)

The study of the language and activity of the scientific community. Topics include: scientific explanation; prediction; laws; theories; models; paradigms; observations; experiment; scientific method; and the question of reductionism in science.

### 120 Ethical Theory (3)\*

A study of the general principles of ethical conduct. Topics to be examined will include: the nature and grounds of morality; ethical relativism; egoism and altruism; utilitarianism; Kant's deontological ethics; ethical values and facts; free will and moral responsibility. (Every Fall)

### 121 Applied Ethics (3)

A study of the applications of ethical principles to different types of human conduct. Contemporary ethical issues are considered in such areas as: biomedical ethics; sexual behavior; human rights; business ethics; ecology. Prerequisites: Philosophy 120 or consent of instructor.

### 130 Ethics (3)\*

A general study of principles or standards for judging individual and social conduct, focusing on major thinkers and philosophical issues in normative ethics, and the application of moral judgment to social or problem areas in human conduct.

### 131 Biomedical Ethics (3)\*

A systematic examination of ethical principles as they apply to issues in medicine and scientific research, that is: mercy killing, abortion; experimentation on human subjects; allocation of scarce medical resources; organ transplants; and behavior modification. Moral obligations connected with the roles of nurse, doctor, etc., will receive special attention. (Every semester)

### 132 Business Ethics (3)\*

A systematic application of various ethical theories to issues arising from the practice of modern business. Topics may include theories of economic justice, corporate social responsibility, employee rights, advertising and information disclosure, environmental responsibility, preferential hiring and reverse discrimination, self-regulation and government regulation.



**133 Legal Ethics (3)\***

An examination in the light of traditional and recent moral theory of the ethical issues faced by the practicing lawyer: the values presupposed by the adversarial system; the moral responsibilities of lawyers within corporations and government; the conflict between personal ethics and obligations to clientele; and whether legal education involves a social conditioning process with its own implicit value system.

**134 Studies in Ethics (3)\***

Exploration of selected issues in moral philosophy, often of an interdisciplinary nature, on such themes as: death and dying; environmental ethics; business ethics; morality and science fiction; morality and teaching; etc. Depending on the suffix, the course may be repeated for credit.

**135 Death and Dying (3)\***

The analysis of various ethical, epistemological, and metaphysical problems relating to death and dying. Topics may include: near-death experiences; immortality and resurrection models of eschatology; the evil of death; value issues raised by the definitions of death, suicide, euthanasia, infanticide, and the killing of non-human animals.

**136 Virtues and Vices (3)\***

An investigation of the morality of character that considers the question, "What kind of person ought I to be?" This approach to morality is contrasted with standard Kantian and utilitarian positions. Specific virtues and vices typically considered include: love; friendship; hate; jealousy; compassion; deceit; self-deception; anger; resentment; and forgiveness.

**137 Mass Media Ethics (3)\***

What is the responsibility of citizens, consumers, corporations, advertisers, artists and performers, and federal or local government toward mass media? Do mass media influence human contact for better or worse? Does regulation of, for example, pornography or propaganda conflict with First Amendment rights? Are news and commercial media politically biased? Do educational media enhance or undermine traditional teaching methods? Lecture, discussion, group activities, analysis of media presentations. Cross-listed as Communication Studies 137.

**138 Environmental Ethics (3)\***

An exploration of ethical issues pertinent to the environment, for example: obligations to future generations; the question of animal rights; endangered species; pesticides and pollution; energy technologies; depletion of resources; global justice and ocean resources. Consideration of the pertinent obligations of individuals, businesses, and government.

**139 Political Ethics (3)\***

An exploration of selected ethical issues in the field of governmental service, such as: cam-

paign promises; welfare programs; taxation; overstepping the limits of the office; lying; whistle-blowing; also, an examination of ethical issues in international politics, especially the morality of war, the promotion of human rights, and problems of international distributive justice.

**140 Morality and War (3)\***

Normative ethical theories applied to moral questions associated with war, such as: Can war ever be justified? If so, what are the moral constraints upon the conduct of war? Is it possible to justify the use of nuclear weapons? Is the threat to use nuclear weapons justifiable as a deterrent?

**141 Ethics and Education (3)\***

This course provides an introduction to such topics in moral theory as: ethical relativism, deontological and consequentialist approaches to morality; and ethical egoism. Among the specific moral issues in education usually considered are preferential admissions policies, student-teacher confidentiality, the morality of grading, honesty and deception in educational contexts, and the allocation of scarce educational resources.

**142 Engineering Ethics (3)\***

Examines the rights, responsibilities and social role of the professional engineer. Topics may include: conflicts of interest; the moral status of organizational loyalty; public safety and risk assessment; reproductive engineering and human dignity; preventing environmental destruction; "whistle-blowing"; defective product liability; engineers and corporate power; engineers and government; codes of conduct and standards of professional competence. Case studies may include: military and commercial airplanes; automobiles; public buildings; nuclear plants; weapons research; computers and confidentiality; the use and abuse of new technologies.

**143 Gender and Economic Justice (3)\***

Discrimination in employment, the persistence of sex segregation in the labor force, the feminization of poverty, and the implementation of policies designed to minimize gender-based career and economic differences and to improve the economic status of women—such as affirmative action—raise a number of ethical as well as economic questions. This course surveys ethical theory and considers the application of ethical principles to issues concerning the economic status of women and related gender-based issues, including the position of women in business and the professions.

**149 Value Theory (3)**

What is value? Is there a gap between values and facts? Can we ever rationally defend (or reject) value-claims in ethics, art, politics, religion? What is the relation between economics and value? How does history influence value and the study of value? Readings include G.E. Moore, John Dewey, Ralph Barton Perry, Max Scheler, Robert S. Hartman.

**160 Legal Reasoning (3)**

This course introduces students to concepts and forms of argument they will encounter in the first year of law school. It will examine the reasoning involved in the concepts of legal precedent, proximate cause, and burden of proof, and it will also investigate the legal reasoning in certain landmark cases from torts, contracts, property, constitutional law, and criminal law. Prerequisite: Philosophy I or consent of instructor.

**161 Philosophy of Law (3)**

A philosophical examination of the nature, divisions, and functions of law and legal reasoning. Important theories in the history of legal philosophy will be considered, including the views of Plato, Aristotle, Aquinas, Bodin, Grotius, Bacon, Hobbes, Kant and Marx. Analysis of the basic concepts of legal philosophy rights, responsibility, justice, property, punishment, law and morality. Study of selected contemporary issues in legal philosophy with case materials.

**162 Political Philosophy (3)**

The nature and end of the state; relation of the individual's rights and duties to those of the state and vice versa, and the relation between states; the kinds of states; their institution, preservation, and destruction.

**167 Studies in Renaissance Philosophy (3)**

This course studies main figures in Renaissance thought—Petrarch, Pico, Vives, Bacon, et al. It addresses such topics as: the revival of Greek and Roman culture; the Florentine academy; tensions between humanism and theology; the Copernican revolution in science; and the legacies of Bruno, Leonardo, More, Machiavelli, and Montaigne.

**170 Studies in Ancient Philosophy (3)**

An in-depth study of selected ancient philosophers, that is, Plato, Aristotle, the Stoics, or topics such as the nature of good, knowledge and skepticism, the problem of Being and change.

**171 Studies in Medieval Philosophy (3)**

An in-depth study of selected medieval philosophers, that is, St. Augustine, St. Anselm, Abelard, St. Thomas, Duns Scotus, William of Occam, or topics such as the problem of universals, the existence of God, the soul and immortality, and the problem of evil.

**172 Studies in Classical Modern Philosophy (3)**

An intensive reading of one or more classics in 17th-18th century European thought, by such authors as Descartes, Leibniz, Spinoza, Hobbes, Locke, Berkeley, Hume, Kant, and Rousseau; or alternately, a discussion of one or more central problems in this era, such as the relation between science and religion, the justification of causal inference, the respective roles of reason and experience in obtaining reliable knowledge of the world, the concept of selfhood, etc.

\*Fulfills General Education Ethics requirement



**173 Studies in Contemporary Analytic Philosophy (3)**

An intensive examination of either major figures (such as Chisholm, Kripke, Quine), movements (logical positivism, ordinary language analysis, logical analysis) or selected problems (epistemic foundationalism, modality and essentialism, identity and individuation) in contemporary analytic philosophy.

**174 Studies in Contemporary Continental Philosophy (3)**

An intensive examination of major figures (such as Husserl, Merleau-Ponty, Habermas, Foucault, Derrida), movements (phenomenology, existentialism, critical theory, deconstructionism) or problems (the nature of representation, the relation of emotion and thought, the problem of technology) in contemporary continental philosophy.

**175 Studies in Process Philosophy (3)**

Process Philosophy is a generic term designating the group of philosophers who view reality as a changing and developing process. Included in this group are Herbert Spencer, Karl Marx, Henri Bergson, and Alfred North Whitehead. The course will focus, in successive years, on one of these thinkers.

**176 Studies in Oriental Philosophy (3)**

A detailed examination of one or more classic works from the Hindu, Buddhist, Confucian and Taoist traditions, such as the Bhagavad-Gita or the Analects; pitfalls of interpretation; relations between text and ure. Parallels and contrasts with Western thought and institutions. May be repeated for credit with different course content.

**180 Philosophy of Art (3)**

An examination of some major theories of art and beauty, with special attention to such issues as: the definition of beauty; the criteria for excellence in artistic productions; the differences between art and science; and the relation between art and culture. Readings may include Aristotle's Poetics, Kant's Critique of Judgement, Dewey's Art as Experience, or more recent philosophers, that is, Beardsley, Dickie, Goodman, Weitz, etc.

**181 Philosophy of Education (3)**

An examination of some major theories of the meaning and function of education and of its role in reshaping society. Readings may include Plato's Meno and Republic, Aristotle's Politics, Rousseau's Emile, Dewey's The School and Society and The Child and the Curriculum, and various works by Piaget.

**183 Philosophy of Social Sciences (3)\***

A study of the fundamental concepts, methods and goals of the social sciences, including a consideration of such topics as: the nature of the

human action; the possibility of a science of human nature; the relationship between the natural and social sciences; explanation and understanding; laws and theories; objectivity and value judgments; and freedom and determinism.

**185 Philosophy of History (3)**

What is history? Why do human beings record their history? Is history moving toward a goal? Is history a science or an art? Are historical events objective occurrences? Can we verify casual claims about unrepeatable episodes? Is the historian entitled (or obliged) to make value-judgments? How should we rank the contributions of individual historians? Readings include philosophers and historians, classical and contemporary sources.

**190 Philosophy of Love (3)**

A course aimed at tracing the definition and understanding of love through the history of thought in order to obtain an understanding of this reality which claims such an important role in today's living. Classical and contemporary thinkers, including Plato, Aristotle, Kierkegaard, Freud, and Fromm are studied from many disciplines for a more comprehensive view of the topic.

**194 Contemporary Philosophical Problems (3)**

An intensive examination of one or more contemporary philosophical problems such as: the is-ought debate; the mind-body problems; relativism and the possibility of objective knowledge; etc. Topic may vary. The course may be repeated for credit, provided the content of the course has changed.

# Physics

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Gregory D. Severn, Ph.D.

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The University of San Diego offers a program leading to a bachelor's degree with a major in physics, providing a sound undergraduate program in physics within the framework of a liberal education provided by the College of Arts and Sciences. This major provides a suitable preparation for graduate study or for immediate employment in physics and in related fields. The USD physics program has an advanced laboratory/research laboratory located in the lower floor of Loma Hall. Physics students are encouraged to participate in undergraduate research. There are facilities for experimental research in plasma and vacuum physics, non-linear processes in fluid flow, and sports physics.

## RECOMMENDED PROGRAM OF STUDY

### FRESHMAN YEAR

Semester I	Semester II
Preceptorial (3)	Physics 50 (4)
Mathematics 50 (4)	Mathematics 51 (4)
GE or	GE or
Electives (6-9)	Electives (6-9)

### SOPHOMORE YEAR

Semester I	Semester II
Physics 51 (4)	Physics 52 (3)
Mathematics 52 (4)	Physics 52L (1)
Chem 10A (3)	Chem 10B (3)
Chem 11A (1)	Chem 11B (1)
GE or	GE or
Elective (3)	Electives (6-9)

### JUNIOR YEAR

Semester I	Semester II
Physics 124	Physics 125
or 130 (3)	or 131 (3)
Mathematics UD (3)	Mathematics UD (3)
GE or	Physics 120 (4)
Electives (9)	GE or Electives (6)

### SENIOR YEAR

Semester I	Semester II
Physics 124	Physics 125
or 130 (3)	or 131 (3)
Physics 127 (4)	Physics
GE or	Elective (4)
Electives (8)	GE or Electives (9)

The student must satisfy all General Education requirements as set forth in this *Bulletin* and complete the following courses.

**Preparation for the Major:** Physics 50, 51, 52, 52L; Mathematics 50, 51, 52; Chemistry 10A-10B, 11A-11B.

#### The Major:

The 24 units of upper division work must include Physics 120, 124, 125, 127, 130, 131.

**Note: A minor in Mathematics is required for the Physics Major.**

Students expecting to attend graduate school are advised to take additional coursework in mathematics and as many as possible of the following elective courses in Physics: 180W, 194, 195, 196.

Students should fulfill as many of the non-science General Education requirements as possible during the freshman and sophomore years.



The following program of study fulfills the minimum requirement for a Bachelor's degree in physics. It is recommended that a student take Mathematics 50 in the first semester and Mathematics 51 as well as Physics 50 in the second. If the student is not prepared to take Mathematics 50 in the Fall of the freshman year, it would be preferable to take Mathematics 11 and 12 the Summer preceding the freshman year. It would be possible, but difficult, to take Mathematics 11 and 12 in the Fall of the freshman year and still begin Physics 50 in the Spring of the freshman year, along with Mathematics 50.

#### The Minor:

The 18 units required for a minor in Physics must include at least six upper division units, and should normally include Physics 50 and 51.

## COURSES

### 1 Physics and Society (3)

A discussion of the concepts which unify our experience with the physical world. Topics are presented at an introductory level for the student with little or no background in physical science. Science related topics of special interest are discussed. Examples include alternatives for energy production and conservation; radiation, its effect and applications; ethical decisions in the application of new scientific discoveries. Three lectures weekly with demonstrations and discussions. (Every semester)

### 2 Physics and Society with Laboratory (3)

A discussion and empirical examination of the concepts which unify our experience with the physical world. Topics are presented at an elementary level for the student with little or no background in physical science. Science-related topics of special interest are discussed. Examples include alternatives for energy production and conservation; radiation, its effect and application; ethical decisions in the application of new scientific discoveries. Two lectures, one laboratory/recitation weekly.

### 5 Introduction to Meteorology (3)

An introduction to atmospheric science. Various atmospheric phenomena will be discussed with an emphasis on their underlying causes. Topics include: composition and thermal structure of the atmosphere; circulation; weather; and human influences. There are no science prerequisites. Two lectures and one three-hour laboratory per week. **This course satisfies the Physical Science General Education requirement, with laboratory.** Cross-listed as Environmental Studies 5.

### 6 Astronomy (3)

A survey of astronomy covering astronomical history, descriptive astronomy, planetology, stellar birth/life/death, and cosmology. No science prerequisites. Two lectures and one laboratory

weekly. **This course satisfies the Physical Science General Education requirement with laboratory.**

### 42 General Physics I (4)

A study of the fundamental principles of mechanics and wave motion, sound, and heat. Three lectures and one laboratory weekly. Prerequisite: Concurrent registration in Mathematics 14 or 50. (Every Semester)

### 43 General Physics II (4)

A study of the fundamental principles of electricity and magnetism, light, and modern physics. Three lectures and one laboratory weekly. Prerequisite: Physics 42. (Every semester)

### 50 Introduction to Mechanics and Wave Motion (4)

A study of the fundamental principles of mechanics and wave motion. Three lectures weekly; one three-hour laboratory every two weeks and a recitation period alternate weeks. Prerequisite: Mathematics 50 completed or concurrent required; Mathematics 50 completed and Mathematics 51 concurrent recommended. (Every Spring)

### 51 Introduction to Electricity and Magnetism (4)

A study of the fundamental principles of classical electricity and magnetism. Three lectures weekly; one three-hour laboratory every two weeks and a recitation section alternate weeks. Prerequisites: Physics 50 completed and Mathematics 51 completed or concurrent required; Mathematics 52 concurrent recommended. (Every Fall)

### 52 Introduction to Thermodynamics, Optics, and Modern Physics (3)

A study of thermodynamics, geometrical and physical optics, and an introduction to modern physics. Three lectures per week. Prerequisites: Physics 51 and Mathematics 51. (Every Spring)

### 52L Introduction to Thermodynamics, Optics, and Modern Physics Laboratory (1)

Laboratory experiments will be performed to illustrate the topics presented in the lecture course: Introduction to Thermodynamics, Optics, and Modern Physics (Physics 52). Prerequisite: Concurrent enrollment in Physics 52.

### 98 Physics Laboratory (1)

Laboratory experience in physics for those students who have already completed a non-laboratory course in general physics (Physics 42, 43, 50, 51) but who need laboratory to complete their physics requirement. May be repeated for credit to complete the lab requirement for a different course in general physics.

### 120 Electronics (4)

Development of the principles of direct current and alternating current circuits; electrical

measurement techniques; electronics with discrete components-active and passive; power supplies and the principles of amplifiers. Three lectures and one laboratory per week. Prerequisites: Physics 51, Mathematics 14 or 50. Cross-listed as Computer Science 120.

### 121 Digital Logic and Microcomputers (4)

Introduction to a simple microprocessor and its applications; microcomputer systems organization; memory and I/O interfacing; assembly language programming of a simple microprocessor; use of assemblers and other development tools. Three hours of lecture and one laboratory weekly. Prerequisite: Physics 120; a high-level programming language is recommended.

### 124 Electromagnetic Theory I (3)

A development of Maxwell's equations using vector calculus. The electrical and magnetic properties of matter and the solution of boundary value problems are also developed. Three lectures per week. Prerequisites: Physics 51, Mathematics 52. (Alternate years)

### 125 Electromagnetic Theory II (3)

Applications of Maxwell's equations in areas such as: optics; plasma physics; superconductivity; electrodynamics. Three lectures per week. Prerequisite: Physics 124. (Alternate years)

### 127 Analytical Mechanics (4)

Statics and dynamics are developed using vector analysis, the Hamiltonian and Lagrangian formulations, and normal coordinates. Four lectures per week. Prerequisites: Physics 51, Mathematics 52. (Alternate years)

### 130,131 Modern, Quantum, and Statistical Physics I, II (3,3)

Modern physical theories are studied including quantum and statistical mechanics. Applications are considered in areas such as atomic, nuclear, solid state, and elementary particle physics. Three lectures per week. Prerequisites: Physics 52 and Mathematics 52. (Alternate years)

### 177 Introduction to Fluids (3)

An introduction to the basic principles of fluids. This course will serve as an introduction to concepts used in physical oceanography and atmospheric science and other disciplines in which fluids are studied or utilized. Examples of applications to a broad range of disciplines (physics, engineering, earth sciences, and biology) will be developed. Prerequisites: Physics 42-43 (or Physics 50-51), Mathematics 50-51 and consent of instructor. Cross-listed as Marine Science 177.

### 179 Atmospheric Science (3)

A development of atmospheric science based upon the fundamental principles of the physical sciences. Topics include: atmospheric composition; thermodynamics; radiation; cloud



physics and dynamics. Three lectures per week. Prerequisites: Physics 43 or 51 and Chemistry 9 or 10A. Cross-listed as Marine Science 179.

### 179L Atmospheric Science Laboratory (1)

Laboratory and field work to accompany Physics 179. Prerequisite: Concurrent registration in Physics 179. Cross-listed as Marine Science 179L.

### 180W Experimental Physics (4)

Introduction to principles of research and techniques with an emphasis on vacuum science, electromagnetic, plasma, and atomic physics. Techniques for creating, exciting and measuring electromagnetic, atomic and thermodynamic properties of laboratory plasmas using associated apparatus. Both analogue and digital data acquisition instrumentation will be used. Laboratory reports and papers will be required for each experiment. Three lectures per week, one three hour laboratory per week. Prerequisites: Physics 120, Physics 125 concurrent or completed.

### 193 Techniques in Physics (1-3)

Training and practice in those areas of Physics of practical importance to the technician, teacher, and researcher. To include, but not limited to, technical methodology, preparation and technique in the teaching laboratory, and routines supportive of research. May be repeated up to a maximum of four units of credit. Prerequisite: Consent of instructor. (Every semester)

### 194 Special Topics (1-4)

Topics chosen by the instructor in areas such as: thermodynamics; statistical mechanics; solid state; hydrodynamics; quantum mechanics; plasma physics; nuclear physics; elementary particle physics; and advanced physics laboratory. May be repeated for credit if the course material is different. Prerequisites: Physics 51 and consent of instructor.

### 195 Seminar (1)

A weekly seminar on a current topic in Physics. Generally, the students and staff will attend a Physics seminar or colloquium in the San Diego area. Each student will also be required to prepare a presentation either on his or her own research work or on a review of a current area. One hour per week.

### 196 Research (1-4)

An undergraduate research problem in experimental or theoretical physics or research participation in the Environmental Studies program. A written report is required. Problem to be selected after consultation with department faculty. Prerequisite: Consent of the instructor.

## Political Science

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Patrick F. Drinan, Ph.D.

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The Political Science major prepares the student for graduate study in the field as well as for careers such as government (the largest employer in the United States), teaching, journalism, law, and foreign service (with industry as well as government).

Students wishing to earn a Social Science Teaching Credential may do so while completing a major in Political Science. The specific requirements for the teaching credential differ from general requirements for the Political Science major. Students interested in pursuing a Social Science Teaching Credential should consult the department chair.

### Preparation for the Major:

Political Science 1, 15, 20, 95.

### The Major:

Twenty-four units of upper division work to include Political Science 108 and 109.

### The Minor:

Political Science 1, 15, 108, and nine upper division units.

## COURSES

### 1 Introduction to Political Science (3)

This course will provide students with an understanding of the basic concepts and processes of Political Science as well as the background information and analytical skills needed to comprehend today's difficult political issues. It will also attempt to communicate some of the excitement and vitality of Political Science as a field of study.

### 15 American Politics (3)

An analysis of the origin, development, structure, and operation of national, state, and local government in terms of historic political issues.

### 20 International Politics (3)

A study of political relations among nations to include national goals, diplomacy, struggles for power, and war. Theories looking to significant patterns in world politics are analyzed and discussed.

### 95 Research Methods in Political Science (3)

This course is designed to introduce students to the various stages of the research process from conceptualization of the research question to

## RECOMMENDED PROGRAM OF STUDY

### FRESHMAN YEAR

#### Semester I

Preceptorial (3)

Pol. Sci. 15 (3)

GE or Electives (9-10)

#### Semester II

Pol. Sci. 1 (3)

GE or Electives (12-13)

### SOPHOMORE YEAR

#### Semester I

Pol. Sci. 95 (3)

GE or

Electives (12)

#### Semester II

Pol. Sci. 20 (3)

GE or

Electives (12-15)

### JUNIOR YEAR

#### Semester I

Pol. Sci. 108 (3)

Pol. Sci. UD (3)

GE, Minor or  
Electives (9)

#### Semester II

Pol. Sci. 109 (3)

Pol. Sci. UD (3)

GE, Minor or  
Electives (9)

### SENIOR YEAR

#### Semester I

Pol. Sci. UD (6)

GE, Minor or

Electives (9-10)

#### Semester II

Pol. Sci. UD (6)

GE, Minor or

Electives (9-10)

interpretation of findings. Specifically, students will learn to develop efficient research strategies to evaluate empirical relationships from a theoretically informed perspective.

### 101 Principles of Public Administration (3)

General theory and practice of governmental administration at the national, state, and local levels. Development and effectuating of policy and implementation of legislation. Communications, administrative structure, and the role of the public administrator in society.

### 102 State and Local Government (3)

An examination of the political functions of state and local governments.

### 105 Public Policy (3)

A study of the political and administrative processes through which public policy is formulated, adopted, implemented, and evaluated.

### 106 Women in Politics (3)

An analysis of women in politics from an historical as well as theoretical perspective. Among the topics to be examined will be the status of women, women as voters and as an interest group, women in public office, and women designing policy.



**107 Urban Politics (3)**

This course will examine the interaction of political leadership, administrative officials, interest groups, and citizens groups in the formulation of public policy in the urban community. Selected issues in land use, planning, environmental control, education, housing, transportation and fiscal policy will be examined with special attention to the political economy and political sociology of the San Diego metropolitan area.

**108 History of Political Thought: Ancient to Modern (3)**

An examination of the formation and development of political ideas, from Greek political philosophy to modern political thought. Emphasis will be upon the relation between theory and practice in political life. (Every Fall)

**109 History of Political Thought: Modern and Contemporary (3)**

An examination of political ideas in the modern Western tradition. Emphasis will be upon the relation between theory and practice in political life. (Every Spring)

**110 Comparative Political Ideology (3)**

An examination of modern political ideology from a comparative perspective including democratic liberalism, socialism (democratic and authoritarian), fascism, and contemporary Third world nationalism.

**111 Religion in Politics (3)**

An introduction to the study of the role of religion in sociopolitical change. The course will deal with the theoretical literature on the subject and focus on the salient cases in the various religious traditions and regions of the world.

**112 Politics in Literature (3)**

This course will explore the political content of selected classical, modern, and contemporary literature. Emphasis will be placed on concepts such as authority, power, freedom, equality, organization, obligation, and the ways these concepts have been treated by different authors.

**113 Politics and Parties (3)**

An examination of the origin, nature, structure and operation of American political parties and interest groups, and their role in the political process.

**114 American Political Thought (3)**

The origin and development of significant political ideas in the United States as expressed in the contributions of selected thinkers.

**115 Political Behavior (3)**

Political socialization, orientation, and participation are described and explained. Both quantitative and traditional research methods will be utilized. Election data will be the focus of the course.

**117 Presidency (3)**

An analysis of the institution of the presidency, its functions, formal and informal relationships and its limitations within the American political system. Emphasis will be on the dynamics of the presidency, personality, performance, leadership, staffing, executive-legislative relationships, and policy formation.

**118 Congress (3)**

The history, organization, operation, and politics of Congress. Nomination and election, constituent relations, the formal and informal structures of both houses, relations with the executive branch, and policy formulation.

**120 Constitutional Law I (3)**

The course will focus on the early development of American constitutional law including the Articles of Confederation, the Constitutional Convention, and the development of Supreme Court doctrines in such substantive areas as judicial review, federalism, and the contract and commerce clauses.

**121 Constitutional Law II (3)**

A continuation of the examination of Supreme Court opinions with a focus on issues involving civil rights and liberties.

**122 Judicial Behavior (3)**

An analysis of judicial policies and decision making and the study of the recruitment and career patterns of legal elites. The focus of the course will be judicial behavior in the United States, although some comparative data will be presented.

**126 Comparative Public Law (3)**

A cross-national, historical, and comparative analysis of constitutional, administrative and criminal law in divergent political systems. Subject countries will vary, but will include representative states within the Civil Law, Common Law, and Socialist Law traditions.

**127 International Law (3)**

The theory and practice of international law; diplomatic intercourse and its problems; the recognition of states; treaties and alliances; the International Court.

**128 International Organizations (3)**

An introduction to the study of the international organization in world politics. The focus will be on the development of the 20th century entities: the League of Nations and United Nations.

**129 Law of the Sea (3)**

A study of regimes of the sea including fisheries, law enforcement, and coastal management zones. The politics of ocean regulation will be examined with particular attention to law of the sea negotiations involving strategic and economic prospects for the oceans. Cross-listed as Marine Science 153.

**130 International Political Economy (3)**

An introduction to the study of the history, issues, and dynamics of political/economic interactions in the international economy. The course focuses on relations of the advanced industrial societies and issues affecting the less developed countries. Special topics such as international energy, the international debt crisis and international migration will also be considered. Economics 11 and 12 are recommended.

**132 Regionalism in World Politics (3)**

An introduction to the concept of regionalism as it has been applied in the 20th century. The focus will be on both Western and non-Western political and economic regional arrangements.

**154 Politics in Western Europe (3)**

A survey of the political cultures, institutions, and processes of the United Kingdom, France, and the Federal Republic of Germany. Some attention will be given to national policies and to the development of a more integrated western European community.

**155 Politics in France (3)**

This course examines French political regimes prior to the 5th Republic; the current institutions of government; the evolution of the major political parties; the cultural dimension of French politics; and selected domestic and foreign policies.

**156 Politics in Germany (3)**

This course addresses historical and contemporary political issues to illustrate how formal and informal institutions interact to deal with some of the problems facing Germany.

**157 Politics in England (3)**

This course examines the development of democracy in England; the institutions of government and parliament; political parties; and selected domestic and foreign policies.

**158 Comparative Politics of Developing Countries (3)**

An introduction to the study of issues affecting political development in Third World societies. The roles of the state, the party, the military, the bureaucracy, the international system, and the indigenous cultural milieu will be investigated.

**159 Revolutionary Change (3)**

A comparative study of the revolutionary process focusing on the meaning of revolutionary change, the causes and states of revolutions, and the conditions that influence their outcome. Special attention will be on the French, Russian, Chinese, Nicaraguan, and other revolutions.

**177 European Security Policy (3)**

An analysis of the political, military, and economic dimensions of European security in the post-World War II period. Special attention will



be given to the countries of the United Kingdom, France, and the Federal Republic of Germany, as well as the security interests of Eastern Europe.

### 178 Contemporary American Foreign Policy (3)

Problems and issues of current import in American foreign policy. The focus is on the decision making process and the impact of the domestic and international environment on that process.

### 179 U.S. National Security Policy (3)

An examination of military technology; international relations theory; domestic security politics; nuclear strategy; arms control, conventional forces; alliance dynamics; political economy of defense; and Third World intervention.

### 180 Russian Politics (3)

An analysis of the decline of the Tsarist and Soviet empires with attention to economic, nationality, and governance issues. Scenarios for the political reorganization of the region will be examined.

### 181 Politics in Eastern Europe (3)

An analysis of the historical, philosophical, and institutional aspects of the politics. The political relations of the region with the former Soviet Union and the European Communities will be emphasized.

### 182 Russian Foreign Policy (3)

An examination of the rise and decline of the USSR as a superpower. Implications of the breakup of the Soviet Union will be analyzed including general effects on the international political and economic systems. Future role of Russia in international politics.

### 185 Latin America in World Affairs (3)

This course will focus on Latin America's role in international politics. International organizations, relations with the United States and other countries, and regional issues will be examined.

### 186 Politics in Latin America (3)

This course will explore the issues, forces and processes of political development in the Latin American region.

### 187 Politics in South Asia (3)

An introduction to the study of politics in South Asia with a focus on the issues of socioeconomic change, political development, regional relations, and international linkages. The course will focus principally on India, Pakistan, and Bangladesh, but the politics of Nepal and Sri Lanka will also be considered.

### 189 Politics in Japan (3)

Political culture of contemporary Japan is studied with attention to the evolution of political

practices. Japanese policies relating to industrialization and modernization are examined.

### 190 Politics in China (3)

An examination of contemporary politics and political issues in China. Emphasis on the relationship of ideology and practice in Chinese politics.

### 192 Politics in the Middle East (3)

An introduction to the study of the politics of the Middle East and North Africa. The complex issues of regional conflicts with international significance and the forces shaping the internal development of the modern Middle East will be explored.

### 193 Comparative Foreign Policy (3)

The course will examine how comparison of foreign policies can be accomplished. Public policy formation and political structures in various countries will be analyzed with particular attention to the linkage of domestic and foreign policy decision-making.

### 194 Special Topics in Political Science (3)

An examination of topical issues affecting politics in the United States. The course may be repeated for credit when the topic changes.

### 195 Special Topics in International Relations (3)

An examination of topical issues affecting the domestic politics of foreign countries or the international political system. This course may be repeated for credit when the topic changes.

### 198 Internship (1-6)

Participation in a governmental internship at local, state, or national level. Students will be required to complete a research paper under the supervision of the instructor. This course is open only to junior or senior Political Science majors with a grade point average of 3.0 or higher. Students may not earn more than a total of six units in Political Science 198, and only three units may be used toward the major. Prerequisites: Political Science 15 and 101, or consent of instructor.

### 199 Independent Study (3)

Advanced individual study in Public Policy, American Institutions, International Relations, Public Law, Political Theory, or Comparative Politics. This course is open only to junior or senior political science majors with a grade point average in political science courses of 3.3 or higher. It may be repeated for credit once, although not in the same area of the discipline. Approval of instructor and department chair is required, and substantial prior coursework in the area is expected.

**Note:** For graduate courses in Political Science, see the *Graduate Bulletin*.

# Psychology

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Psychology is the study of human and animal behavior. The objective of USD's psychology program is to advance the student's understanding of psychology as a science, a profession, and a means of promoting human welfare. The major is designed to help students prepare for admission into graduate school in psychology or provide a background for other career possibilities. The major may be used as a foundation for entry into fields such as the ministry, primary and secondary education, social work, probation, law, medicine, business and personnel work.

### Preparation for the Major:

Psychology 1, 30, and 60 are required; Mathematics 14 and Computer Science 6 or 50 are strongly recommended as is the use of Biology 1 or 4 to fulfill the Life Science requirements for General Education.

### The Major:

A minimum of 27 upper division units is required and must be distributed as follows:

One course from each of the following areas:

Biological: Psychology 142 or 144

Clinical: Psychology 152, 154, 155 or 156

Cognitive: Psychology 132, 134 or 136

Developmental: Psychology 114 or 116

Social: Psychology 122

Theories: Psychology 172, 174 or 177

One Advanced Research Methods/  
Laboratory Course:

Psychology 115, 123, 133, 135, 137, 143

or 145 (Note: Offered as "W" courses,

these fulfill the General Education upper division writing requirement).

Six additional units of upper division psychology coursework.

The electives chosen to complete the major requirements should be selected with a view to achieving balance among the major areas of psychological knowledge. A maximum of four units from any combination of Psychology 196, 197, and 198 elective units can be applied toward the units required to complete the major. Units beyond this limit are, however, applicable to the 124 units required for graduation. For students interested in graduate work in psychology taking additional courses, including laboratories, beyond those required for the major is an important consideration, as is obtaining field and research experience. Students planning an internship



## RECOMMENDED PROGRAM OF STUDY

### FRESHMAN YEAR

Semester I	Semester II
Psych 1 (3)	Psych 30 (3)
English 21 (3)	Biology (3)
Mathematics 11 or 14 (3)	Logic (3)
Foreign Language (3)	Foreign Language (3)
Religious Studies (3)	History (3)

### SOPHOMORE YEAR

Semester I	Semester II
Psych 60 (3)	Psych UD (3)
Philosophy (3)	Literature (3)
Comm., Econ. or Pol Sci (3)	Phys. Science (3)
Foreign Language (3)	Music, Art or Theatre (3)
Religious Studies (3)	Computer Science (3)

### JUNIOR YEAR

Semester I	Semester II
Psych UD (3)	Psych UD (3)
Psych UD (3)	Psych UD (3)
Ethics (3)	Religious Studies UD (3)
Elective UD (3)	Elective UD (3)
Elective (3/4)	Elective (3/4)

### SENIOR YEAR

Semester I	Semester II
Psych UD (3)	Psych UD Elective (3)
Psych UD (3)	Psych UD Elective (3)
Elective UD (3)	Elective UD (3)
Elective UD (3)	Elective (3/4)
Elective (3/4)	

The recommended program of study is intended as a guide to students in planning their college program. It is not expected that students will adhere rigidly to the sequence of suggested courses. For example, a student may take English 21 in the second semester of the freshman year equally as well as in the first semester.

(Psychology 198) should enroll in a Field Experience (Psychology 197) in their junior year. Those who anticipate doing Independent Study (Psychology 199) should begin that work in the first semester of their senior year.

**Note:** Transfer students who wish to graduate as psychology majors will normally be expected to complete a minimum of 12 upper division units in psychology at USD.

### The Minor:

A minimum of 18 units is required for the minor. These must include Psychology 1 and 30 and at least three upper division courses. Psychology 60 is strongly recommended.

Students wishing to earn a Social Science Teaching Credential may do so while completing a major in Psychology. The specific requirements for the teaching credential differ from the general requirements for the psychology major. Students interested in pursuing a Social Science Teaching Credential should consult the School of Education.

Majors who plan to earn the American Humanics Certificate should confer with the executive director of American Humanics (administered by the School of Education) about the preferred elective courses within the major.

## COURSES

### 1 Introductory Psychology (3)

This General Education course provides an introduction to basic concepts in psychology. Topics include: the biological bases of behavior; development; sensation and perception; learning; motivation; psychological measurement; personality; behavior disorders; and social psychology. (Every semester)

### 10 Life Span Human Development (3)

An introduction to the basic concepts, principles and theories that describe the physical, cognitive, and personality changes that occur throughout the life span. This course will also deal with the practical implications of developmental theory and research.

### 30 Research Methods in Psychology (3)

Introduction to the principles and methods of psychological research through lecture, discussion, and participation in laboratory and field research projects. This course will emphasize research designs. (Every semester)

### 60 Statistics (3)

Introduction to the analysis of research data in psychology. Topics include measures of central tendency and variability, correlation, prediction, and hypothesis testing. (Every semester)

### 100W Writing in Psychology (3)

Training in writing in the style specified in the *American Psychological Association Publication Manual*. Involves a series of writing tasks culminating in a written review paper or research proposal. Satisfies the upper division writing requirement in General Education. Prerequisite: English 21.

### 105 Computer Analysis of Behavioral Science Data (3)

Students will learn to enter data on a computer and to use existing programs (for example,

SPSS) to perform the kinds of analyses introduced in basic statistics courses (for example, central tendency, variation, correlation, t-tests, analysis of variance and chi square). More advanced statistical procedures (for example, multiple regression, partial correlation, and analysis of covariance) will be introduced. Previous experience with computers is not required. Prerequisite: Psychology 60.

### 114 Developmental Psychology: Childhood and Adolescence (3)

The study of growth and development of the normal individual from conception through adolescence. The influences of maturation and socialization are emphasized as well as the interdependence of the various periods of the individual's life. Prerequisite: Psychology 1.

### 115 Research Methods/Laboratory in Developmental Psychology (3)

In-depth study of research methods in developmental psychology. Emphasis will be placed on the factors that make developmental research unique, on the appropriateness of particular methods for specific research or practical questions, and on the critical evaluation of research reports. Written project reports as well as a literature review and research proposal will be required. Prerequisites: Psychology 1, 30, 60, and 111, and English 21.

### 116 Developmental Psychology: Adulthood and Aging (3)

A study of human behavior and development into the adult years. Adulthood and aging as part of the generally accepted stages in the life span, attitudes about the adult years and contemporary theories and research in the field will be discussed. A volunteer experience in the community may be required. Prerequisite: Psychology 1.

### 122 Social Psychology (3)

The study of how people think about, relate to and are influenced by others. Topics include: group behavior; socialization; social interaction; attitude change; affiliation; aggression; altruism; person perception; and the role of psychological factors in social problems. Current research will be stressed. (Every Fall)

### 123 Research Methods/Laboratory in Social Psychology (3)

This course provides the student with experiences in evaluating, conducting, planning and writing about research in social psychology. Research problems faced by social psychologists will be discussed. First-hand experiences in planning and carrying out research will be provided. A semester-long project will culminate in an original student research proposal. Prerequisites: English 21, Psychology 1, 30, 60, and prior completion of 122.

### 124 Applied Social Psychology (3)

A study of the various ways that social





psychology has been applied to social and individual problems. Areas of application include: mental health; physical health; the environment; education; organizations; consumer behavior; and law. Prerequisite: Psychology 1.

#### **126 Organizational/Industrial Psychology (3)**

A study of the application of psychological principles in organizational settings. Topics include: organizational structure; personnel selection; social influence and human relations in organizations; leadership; and organizational change.

#### **132 Conditioning and Learning (3)**

The study of learning in humans and animals. Topics include: theories of learning; classical conditioning; instrumental learning; observation learning; perceptual-motor and verbal learning and cognition. Current research will be stressed. Prerequisites: Psychology 1 and 30. (Every third semester)

#### **133 Research Methods/Laboratory in Conditioning and Learning (3)**

This course is designed to give the student an in-depth, hands-on experience with the research methods used in the study of conditioning and learning. Projects involving both human and non-human subjects will be conducted to illustrate the equipment, research designs, and procedures commonly employed in the area. Written project reports, as well as a literature review and research proposal, will be required. Prerequisites: English 21, Psychology 30, 60 and prior completion of or concurrent enrollment in Psychology 132.

#### **134 Human Memory (3)**

A scientific approach to the traditional study of human memory, including structural concepts (memory stores), and process concepts (encoding, organization, retrieval). More recent approaches, including neural networks and concepts related to ecological validity are also explored. Prerequisites: Psychology 1 and 30.

#### **135 Research Methods/Laboratory in Human Memory (3)**

This course integrates an in-depth exploration of selected human memory topics with an emphasis on experimental research methods. Readings of original research, active participation in laboratory replications, and complete research report preparation and write-ups will accompany each topic. The course will culminate with the preparation of an original research project. Prerequisites: English 21, Psychology 30, 60, and prior completion of or concurrent enrollment in Psychology 134.

#### **136 Cognitive Psychology (3)**

Study of how people process information. Topics include: perception; attention; memory; imagery; language; concept formation; and problem solving. Both basic and applied issues will be addressed. Recent advances in neural network models will be introduced. Prerequisites: Psychology 1 and 30 (Every Fall)

#### **137 Research Methods/Laboratory in Cognitive Psychology (3)**

This course integrates an in-depth exploration of selected topics with an emphasis on experimental research methods. Readings in orig-

inal research, active participation in laboratory replications, complete research report preparation and write-ups will accompany each topic. The course will culminate in the preparation of an original research project. Prerequisites: English 21, Psychology 30, 60, and prior completion of or concurrent enrollment in Psychology 136.

#### **138 Attention (3)**

Attention will be studied in terms of models (filter and capacity), types (divided, sustained, selective, and switching), and disorders (schizophrenia, attention deficit disorder, and Alzheimer's). Prerequisites: Psychology 1 and 30 or consent of instructor.

#### **142 Biological Psychology (3)**

Study of the biological bases of behavior, stressing evolutionary, genetic, neural, and hormonal processes. Topics include: anatomy and physiology of the nervous, sensory, and motor systems; and the biological bases of emotion, motivation, learning, memory, sleep, individual differences, and psychopathology. Current research will be stressed. Prerequisites: Psychology 1 and 30 or consent of instructor. (Every third semester)

#### **143 Research Methods/Laboratory in Biological Psychology (3)**

This course is designed to provide in-depth, hands-on experience with the concepts, methods, and techniques used in biological/physiological psychology research, including anatomical and histological methods, surgical and pharmacological manipulations. Written project reports, as well as a literature review and research proposal will be required. Prerequisites: English 21, Psychology 30, 60 and completion of or current enrollment in Psychology 142, or consent of instructor.

#### **144 Animal Behavior: Comparative Psychology and Ethology (3)**

Study of animal behavior through a synthesis of the work of ethologists and comparative psychologists. Stresses the adaptive nature of behavior and its role in evolution. Topics include: research strategies; classification of behavior; evolution and development of behavior; the concept of instinct; communication; and social behavior. Current research will be stressed. Prerequisites: Psychology 1 and 30 or consent of the instructor. (Every third semester)

#### **145 Research Methods/Laboratory in Animal Behavior (3)**

This course will explore the research methods used in the study of animal behavior in both laboratory and field settings. Observational skills will also be developed. Completion of a field project at an appropriate site will be required. Several laboratory projects and demonstrations will be conducted. Project reports as well as a research paper will be written. Prerequisites: English 21, Psychology 1, 30, 60, and concurrent



enrollment in or prior completion of Psychology 144, or consent of the instructor.

**147 Behavior Genetics (3)**

Explores the past and current status of the nature/nurture controversy in psychology as an introduction to the methods of research in behavior genetics. Hereditary influences on perception, learning, intelligence, temperament, personality, and psychopathology will be investigated through a consideration of current research in these areas. (Summer or Intersession)

**148 Psychobiology of Sexual Behavior (3)**

Investigation of the evolutionary, genetic, neural, hormonal and experiential factors in the development and expression of sexual behavior in animals and humans. (Summer or Intersession)

**149 Psychopharmacology: Drugs, Brain, and Behavior (3)**

This course will explore the basic functioning of the central nervous system and the effects of the major classes of drugs on the functioning of the central nervous system, on subjective experience and on behavior. Prerequisites: Psychology 1 and 30.

**152 Introduction to Methods of Psychotherapy (3)**

Introduction to problems, methods, and basic issues of psychotherapy. Prerequisite: Psychology 1. (Every Spring)

**153 Human Relations (3)**

An analysis of human behavior stressing basic psychological concepts which help persons to adequately cope with interpersonal relationships.

**154 Behavior Disorders of Childhood (3)**

This course will examine the causes of emotional disorders in childhood and the various methods of treatment for childhood disorders. Prerequisite: Psychology 1.

**155 Abnormal Psychology (3)**

Study of the dynamics and processes of abnormal behavior with consideration of the biological, psychological and sociological factors involved. Prerequisite: Psychology 1. (Every Spring)

**156 Psychological Assessment (3)**

Principles of psychological testing, selection, evaluation, and interpretation of test results. Prerequisites: Psychology 1, 30 and 60.

**157 Health Psychology (3)**

An examination of the psychological variables contributing to the development and/or progress of disease, and of the effects of illness on injury and behavior. Areas to be considered include the impact of various types of stress on illness, pain mechanisms, psychophysiological disorders, and psychological approaches to prevention and management, and treatment

compliance. Prerequisites: Psychology 1 and 30.

**172 History and Systems of Psychology (3)**

A survey of the major ideas that have affected the development of Western psychology. The empirical, rationalistic and materialistic roots of modern psychology will be discussed. (Every other Fall)

**174 Theories of Motivation (3)**

Analysis of the factors that activate, direct, and modulate human and animal behavior. Biological, behavioristic, and cognitive approaches will be emphasized. Prerequisite: Psychology 1 or consent of instructor.

**177 Theories of Personality (3)**

Foundations of theory will be presented. Major contributions of the analytic, behavioristic, and phenomenological schools of thought will be emphasized. Prerequisite: Psychology 1. (Every other Fall)

**178 Humanistic Problems in Psychology (3)**

The course stresses the humanistic approach to the study of human beings. Contrasts with behavioristic and analytic approaches will be examined. Problems in the psychology of values, religion, alienation, self-actualization, and individuality will be considered. Prerequisite: Psychology 1 and one theories course (Psychology 172, 174, 177) or Psychology 132.

**180 Psychology of Women (3)**

This course will explore the history of psychology's view of women, early psychoanalytic views, the current research on gender differences and women's moral development, women's conflicts in career decisions, gender differences in mental disorders, suicide and eating disorders. Other topics include women's experiences of pregnancy and childbirth, a study of the research on PMS and its effect on women's lives, menopause and aging.

**194 Contemporary Problems in Psychology (3)**

The purpose of this course is to provide the advanced undergraduate student with an opportunity to explore a variety of contemporary problems in psychology. These will be in-depth investigations on subjects of special concern to the instructor. May be repeated with different topics. Prerequisite: Junior standing.

**196 Research Practicum (1)**

Practical experience in serving as a researcher in a project conducted by a faculty member. By invitation. May be repeated for a maximum of two units.

**197 Field Experience in Psychology (1)**

Practical experience in a field setting under professional supervision. Each student is required to complete 40 hours of supervised training in an assigned field setting. May be taken for a maxi-

mum of four units (each unit in a different agency), but restricted to one unit per semester. (Every semester)

**198 Internship in Psychology (3)**

This course involves two hours of class meetings and eight hours of field work each week. Fieldwork is under the joint supervision of agency personnel and the course instructor. Regularly scheduled conferences with the faculty supervisor are required and a log of the experience is maintained by each student. Prerequisite: Prior field experience, Senior standing preferred with consent of the instructor.

**199 Independent Study (1-3)**

Library, laboratory, or field research of the student's own design conducted under faculty supervision. A written report is required.

## Theological and Religious Studies

Kathleen M. Dugan, Ph.D., Chair  
 María Pilar Aquino, S.T.D.  
 Joseph A. Colombo, Ph.D.  
 Helen deLaurentis, Ph.D.  
 Orlando O. Espín, Th.D.  
 Russell Fuller, Ph.D.  
 Florence Morgan Gillman, Ph.D., S.T.D.  
 Rev. Dennis W. Krouse, S.T.D.  
 Gary A. Macy, Ph.D.  
 Rev. Ronald A. Pachence, Ph.D.  
 Patricia A. Plovovich, Ph.D.  
 Rev. Norbert J. Rigali, S.J., Ph.D.

Theology and the study of religion reflect upon the existence and nature of God, the human experience of God and God's revelation in the world. The Roman Catholic tradition is pre-eminent within a curriculum that is both ecumenical and cross-cultural. Since all upper division courses presuppose a religious studies foundation, students are expected to have completed at least one lower division course before enrolling in upper division courses.

**Major Requirements: (36 units)**

Lower Division: Religious Studies 16 and one other course.

Upper Division: Religious Studies 110 or 111, 141 or 142, 160, 164, one course from 180-188 and 15 upper division elective units.

**Minor Requirements: (18 units)**

Lower Division: Religious Studies 16, and one other course.

Upper Division: Religious Studies 160, 164, and six elective units.



## COURSES

**10 The Nature of Religion (3)**

An introduction to the study of religion, investigating universal constants in religious experience such as myths, symbols, ethical values and concern with the meaning of life and death.

**11 Belief and Unbelief (3)**

An investigation in the context of modern atheism and secular humanism into the validity of the claim of religion to speak truthfully of God and to describe the adequate response of human beings to the divine being.

**14 Foundations in Catholic Theology (3)**

An investigation of the fundamentals of Christian belief and of characteristics distinguishing the Roman Catholic from other Christian traditions.

**16 Introduction to Biblical Studies (3)**

A study of the Bible: its formation, historical character, primary themes and interpretation.

**19 Christianity and Its Practice (3)**

An introduction to Christian belief and practice through reflection on classic and contemporary expressions of the Christian life.

**110 History of Religions (3)**

A study of the method of history of religions. Selected readings in the world's religious traditions: Indian, Chinese, Judaic and Islamic.

**111 Christianity and Other Faith Traditions (3)**

A study of the relation of Christianity to Hinduism, Buddhism, Chinese religions, Judaism and Islam. Selected readings from the major religions, the Christian Scriptures, Church Fathers, Second Vatican Council and contemporary theologians.

**112 Hindu Faith and Practice (3)**

An historical and systematic study of Indian religion from the Vedic revelation to modern theologians with special emphasis on points of contact between Hindu and Christian thought.

**113 Jewish Faith and Practice (3)**

An examination of Jewish beliefs and practices, their historical and biblical foundations, and their theological and cultural expressions.

**114 Buddhist Faith and Practice (3)**

A systematic study of the life and teachings of Gautama and an investigation of Buddhism in India, Southeast Asia, China and Japan. Special attention is paid to the contemporary response of Christianity to Buddhism.

**115 Islamic Faith and Practice (3)**

A study of the life of the prophet Muhammad, the fundamentals of the message of the Qur'an, its relationship to Judaism and Christianity, and questions which Islam poses in modern history.

**120 Native American Religious Traditions (3)**

An historical and systematic investigation into the spiritual contribution of Native Americans, their ethos and their meaning for Christianity and the future of humanity.

**130 Foundations of Christian Ethics (3)**

An investigation of the norms of behavior, values and ideals of the Christian life.

**134 Christian Social Ethics (3)**

A study of the Christian community's relation to civil society and of socioethical problems in light of Christian tradition. Prerequisite: Religious Studies 16.

**141 Christian Worship (3)**

An introduction to the study of Christian liturgy through an examination of the history of liturgical practice, of myth and symbol as dimensions of sacramentality, and of theological and cultural principles of celebration. Prerequisite: Religious Studies 14 or 16.

**142 Christian Sacramental Practice (3)**

A study of the practice, history and theology of Christian initiation, eucharist, penance, anointing of the sick, holy orders and matrimony. Prerequisite: Religious Studies 14 or 16.

**143 Christian Marriage (3)**

A theological study of Christian marriage with consideration of the historical development and current pastoral understanding of this sacrament.

**153 Early Christianity (3)**

A study of the theology and religious practices of the first five centuries of Christianity. Prerequisite: Religious Studies 14 or 16.

**154 The Medieval Church (3)**

A study of the theology and religious practices of Western Christianity during the 6th through 15th centuries.

**155 The Reformation Era (3)**

A study of the theologies and religious traditions leading to and expressed in diverse ecclesial communities in Christianity during the 16th and 17th centuries. Prerequisite: Religious Studies 14 or 16.

**156 The American Catholic Experience (3)**

The history of the Catholic Church in the United States of America and theological reflection upon its unique development and characteristics.

**158 U.S. Latino Catholicism (3)**

A culturally contextualized study of the beliefs and practices of Latino Catholics in the U.S., with particular emphasis on popular religiosity.

**160 Jesus in Christian Tradition (3)**

A critical investigation of the person and ministry of Jesus in light of Scripture and the Christian tradition. Prerequisite: Religious Studies 14, 16 or 19.

**161 Christian Understanding of the Human Person (3)**

A theological exploration of the meaning and dignity of human persons in terms of their relationships to God and to creation.

**162 The Christian Understanding of Salvation (3)**

An examination of the Christian understanding of salvation and the redemptive work of Christ from biblical, historical and contemporary perspectives. Prerequisite: Religious Studies 14 or 16.

**163 Fundamental Theology (3)**

An examination of selected classical and contemporary primary source texts on topics such as reason and knowledge of God, religion and evidence, the nature of faith, the logic of religious language, and science and religion.

**164 Theology of the Church (3)**

An investigation of the origin, nature and function of the Church, primarily from the Catholic perspective. Recommended: Religious Studies 14, 16 or 19.

**166 The Problem of God (3)**

The questions "What is God?" "Does God exist?" and "What does it mean to believe in God?" are investigated against the background of classical theism and modern thought.

**167 The Problem of Evil (3)**

An examination of the problem of evil within the context of the Christian faith from biblical, historical and/or contemporary theological perspectives.

**168 U.S. Latino and Latin American Theologies (3)**

An analysis of the contexts, major themes, authors and texts of both U.S. Latino and/or Latin American theologies. Liberation and cultural theologies will be emphasized.

**181 The Pentateuch: Jewish and Christian Roots (3)**

A study of the first five books of the Bible (Genesis, Exodus, Leviticus, Numbers, Deuteronomy), the history of their composition and their theological contributions to Judaism and Christianity. Prerequisite: Religious Studies 16 or consent of instructor.

**182 The Prophetic Tradition of Israel (3)**

A study of Old Testament prophets in their historical, social and political backgrounds. Attention is given to the contribution of the





prophets to Jewish-Christian theologies and their significance for the contemporary world. Prerequisite: Religious Studies 16 or consent of instructor.

**183 Matthew and Mark (3)**

A study of the sayings and deeds of Jesus as handed down by the early Christians and recorded in the first two Gospels. Prerequisite: Religious Studies 16 or consent of instructor.

**184 The Writings of Luke (3)**

A study of the Gospel of Luke and Acts of the Apostles. This course studies Luke's interpretation of the sayings and deeds of Jesus as handed down by the early Christian community and his theological history of the early church. Prerequisite: Religious Studies 16 or consent of instructor.

**185 Pauline Theology (3)**

A study of the Pauline writings and theological thought. Major themes are reviewed with respect to their applications to present-day Christian life. Prerequisite: Religious Studies 16 or consent of instructor.

**186 Johannine Theology (3)**

A study of the Johannine writings, particularly the Gospel. Some of the major themes examined are Christology, Trinitarian doctrine, and eschatology. Prerequisite: Religious Studies 16 or consent of instructor.

**188 The World of the Bible (3)**

A survey of historical, political, social, cultural, and religious conditions of selected periods in biblical history.

**194 Topics in Theological and Religious Studies (3)**

A study of selected major figures or problems or movements or periods in either Christianity and/or other religions. Specification will be made by the instructor. Prerequisite: Permission of the instructor.

**199 Directed Individual Study (1-3)**

Prerequisite: Consent of instructor and approval of the department chair and of the dean.

# Sociology

Eugene M. Labovitz, Ph.D., Coordinator  
George J. Bryjak, Ph.D.  
Anne Hendershott, Ph.D.  
Judith Liu, Ph.D.  
Michael P. Soroka, Ph.D.

**Preparation for the Major:**

Sociology 1, 10, and 60.

**The Major:**

The program in Sociology is designed to prepare students for graduate work in this discipline, and/or for work or advanced study in related fields

of health, education, law, probation, welfare, and urban studies.

**Requirements:**

Twenty four upper division units in sociology, to include:

Sociology 122 or 123 (3)

Sociology 124 (3)

18 additional upper division units.

Students wishing to earn a Social Science Teaching Credential may do so while completing a major in Sociology. The specific requirements for the teaching credential differ from general requirements for the Sociology major. Students interested in pursuing a Social Science Teaching Credential should consult the School of Education.

**The Minor:**

Eighteen units of sociology including Sociology 1 and nine upper division units.

## COURSES

**1 Introduction to Sociology (3)**

Basic concepts of sociology: groups; social processes; status; role; society; behavior patterns; social institutions; culture; social change. (Every semester)

**10 Social Problems (3)**

An analysis of modern social problems recognizing the sociological factors involved. Emphasis on the scientific method of approach. An evaluation of various views on the causes of and solutions for social problems.

**60 Statistical Methods (3)**

An introduction to the use of quantitative methods with emphasis on measures of central tendency and variability, statistical inference, including the normal curve, elementary probability, sampling, and correlation.

**111 Popular Culture (3)**

An examination of the material and other cultural artifacts of "everyday life" in our society. Included for analysis are popular literature, films, television, and other mass media forms; popular icons such as children's toys and adults' automobiles as reflections of underlying cultural values and beliefs; and the promotion of the "the good life" through popular advertising.

**120 American Society (3)**

An introduction to American society within historical and social perspectives. Transitions and transformations in American culture and values are considered in a social context. Topics explored include industrialization, capitalism, social stratification, and the interplay of freedom, democracy, individualism, and volunteerism with America's social structure, political institutions, and cultural framework.



**122 Early Sociological Theories (3)**

Development of sociological theories from Auguste Comte to Max Weber. Prerequisite: Upper division standing.

**123 Modern Sociological Theories (3)**

Development of sociological theories from Max Weber to contemporary European and American sociologists. Prerequisite: Upper division standing.

**124 Methods of Social Research (3)**

An introduction to a broad range of concepts and methods for the collection, organization, analysis, and interpretation of sociological data. Conceptual models, research design, empirical methods, and the special problems of measurement, analysis, and interpretation are stressed.

**131 Race and Ethnic Relations (3)**

An introduction to theory and research relative to minority group relations in the United States and elsewhere, with particular emphasis upon patterns, problems, and consequences of social interaction and cultural diversity among different racial, national, religious, and socioeconomic groups.

**145 Social Psychology (3)**

An introduction to and analysis of social interaction, including individual and group behavior in social situations. Status and role relationships, group and norm formation, as well as communicative, leadership and collective behavior, are stressed.

**147 Introduction to Criminology (3)**

An examination of crime and society, with special emphasis on theories of criminality, types and trends in crime, and current controversies in criminology.

**149 Social Control (3)**

An examination and analysis of the various strategies and techniques utilized to combat deviant and criminal behavior. Attention will be focused on the organization and operation of the American criminal justice system.

**150 Social Organization (3)**

A comparative analysis of the basic structuring of human societies, utilizing the perspective of social systems theory. Topics for discussion will include such fundamental institutionalized processes as social allocation and social power, as well as the development of total societies from simple to complex forms of organization.

**151 Modern Chinese Society (3)**

This course analyzes the historical and social development of the People's Republic of China from 1949 to the present. Topics explored include: the problems of post-revolutionary institutionalization; the role of ideology; the tension

between city and countryside; Maoism; major social movements; socialist education; the urban work force; and the status of women.

**153 Marriage and the Family (3)**

Analysis of the family as a social institution and as a social group, with emphasis on the impact of industrialization on traditional family functions, courtship, role expectations, child rearing, and family stability.

**157 Social Stratification (3)**

An analysis of the structures and dynamics of social inequality, focusing upon competing theoretical explanations and empirical investigations of different arrangements by which wealth, power, and prestige are distributed in human societies.

**158 Political Sociology (3)**

An introduction to the sociological analysis of the theory and practice of power in contemporary societies. Emphasis will be placed upon such topics as the nature of political power, social and cultural foundations of political institutions, sources and patterns of political involvement, and the social consequences of various types of power structures.

**161 Social Change (3)**

An introduction to the nature, sources, characteristics, theories, and consequences of social change. This course explores the impact and consequences of science and technology for the future of American society and for the creation of a "global village."

**162 Sociology of Developing Nations (3)**

An analysis of theories attempting to explain the forces of change that resulted in the transition of pre-industrial societies to modern industrial states. Attention will be focused on contemporary underdeveloped societies and the problems associated with modernization.

**163 Urban Sociology (3)**

An introduction to the study of communities including the city, rural-urban regions, urban ecology and social change in urban areas.

**168 Social Deviance (3)**

An analysis of conceptions of deviant behavior, the nature and prevalence of such behavior, and the theories developed to explain deviance. Emphasis is upon the relationship of such behavior to social structure and social processes.

**169 Sexuality in Contemporary Society (3)**

An analysis of the phenomenon of human sexuality from a sociological perspective. Topics include: the biological basis of sexuality; development of sex roles; historical and cross-cultural views of sexuality; and trends in sexual behavior and attitudes.

**170 Sociology of Education (3)**

An introduction to education as a social process and a social institution. Topics include: the social functions of education; the school as a formal organization and social system; social factors affecting the educational process; and an examination of change and innovation in education.

**180 Collective Behavior (3)**

An examination of the short-lived and often extraordinary noninstitutionalized behavioral phenomena of crowds, mobs, riots, panics, and crazes that seem to periodically disturb the orderly flow of human societal life. Also examined will be the processes by which these "social aberrations" may become institutionalized, as social movements, as part of a new and emerging sociocultural order.

**185 Sociology of Aging (3)**

Study of the sociological, psychological and cultural approaches and problems related to aging. Emphasis is placed on what it means to grow old in American society.

**188 Sociology of Sport (3)**

An examination of the role of sport in American society. Topics to be explored include: sport and social values; socialization into sport; the political and economic aspects of sport, sports and violence; sport and education; the African-American athlete; and women in sports.

**190 Sociology of Mass Communication (3)**

A sociological analysis of mass communications and mass media in modern industrial and post-industrial societies. Topics will include: the development of modern mass communications systems; the role of mass communications media as both conveyor and shaper of public opinion and mass culture; the political impacts of mass communications systems; and the structure and control of mass communications channels.

**194 Special Topics in Contemporary Sociology (3)**

An in-depth analysis of selected contemporary topics in sociology, with specific content to be determined by particular interest of instructor and students. May be repeated for credit with different course content. (On demand)

**197 Internship in Sociology (3)**

A practicum course involving a minimum of 120 hours per semester with various community, social service, and criminal justice agencies throughout San Diego County. Students may be required to attend an orientation program prior to their placement. Fieldwork is under the supervision of agency personnel and the faculty supervisor. Regularly scheduled meetings with the faculty supervisor, a learning journal of experiences, and a research paper are required from each student. A maximum of six units of credit from Internship and/or Field Experience courses may be applied toward fulfillment of requirements for the Sociology major. Prerequisites:



Junior or senior standing and consent of the faculty supervisor are required prior to registration.

#### 198 Field Experience in Sociology (1)

Practical experience in a field setting under professional and faculty supervision. Each student will complete 40 hours of training and service in an assigned field setting. Students may be required to attend an orientation program prior to their placement. Regularly scheduled meetings with the faculty supervisor and a learning journal of experiences are required from each student. May be taken for a maximum of three units, but restricted to one (1) unit per semester. Pass/Fail option only. A maximum of six units of credit from Internship and/or Field Experience courses may be applied toward fulfillment of requirements for the Sociology major. Prerequisite: Consent of faculty supervisor is required prior to registration.

#### 199 Independent Studies (1-3)

Individual study and written research. Prerequisite: Consent of instructor and of department chair.

## Theatre Arts

Marilyn Bennett, Ph.D., Coordinator

The Theatre Arts minor is designed to encourage students to explore both the theoretical and the practical aspects of the theatrical form. Students read plays and discuss them in the classroom; they also see productions on campus, in area theatres and on film. They have the responsibility to write about theatre in several formats, and have regular opportunities to participate in performance projects and productions. Students are encouraged to enroll in dramatic literature courses offered by the English and Foreign Languages and Literatures departments to broaden their theatrical vocabulary and to create their own interdisciplinary programs in consultation with program faculty.

#### The Minor:

The 18 units should include Theatre 20, 30, 160, and six units of upper division courses, three of which should be in dramatic literature. Theatre 11 is recommended.

### COURSES

#### 11 Introduction to Theatre (3)

A survey course designed to provide the general student with an exposure to the basic elements intrinsic to the theatrical event. Lectures, demonstrations and student projects in each of five units: dramatic literature; physical theatre; acting; directing; and scenic design. (Every semester)

#### 15 Theatrical Production (1-3)

Experience in producing a play for performance, by participation in a main stage production. Credit varies according to student's charge. By audition or appointment by the director only. (Every semester)

#### 20 Technical Theatre (3)

Provides the student with the knowledge of stage craft and the theatre plant prerequisite to successful design for the stage. Material is presented and explored through the activities of the production studio. Students engage in set and costume construction projects, learn to hang and focus lights and to run basic light and sound equipment, all in support of the concurrent theatre production. May be repeated for credit. (Every semester)

#### 30 Beginning Acting (3)

An introduction to the art of acting, stressing centering and exploration, using movement and vocal exercises, improvisation techniques, imaginative resources and basic scene study. (Every semester)

#### 35 Intermediate Acting (3)

Concentration in three areas: vocal strengthening, physical flexibility and responsiveness, and techniques of acting. Designed to increase effective use of concentration, observation, sensory awareness and emotional truth onstage. Improvisation and scene-work. Prerequisite: Theatre Arts 30. (Alternate Spring)







#### 40 The Expressive Voice (3)

Techniques for increased awareness and development of a healthy, flexible, well-supported vocal instrument. Exercises in finding and cultivating the source of one's natural vocal potential, with application to acting, singing, public speaking and everyday conversation. Regular vocal exercises and work in poetry, readings, monologues. (Alternate Fall)

#### 120 Lighting and Theatrical Make-Up (3)

An in-depth exploration of the basic theories and practical application of stage lighting for a variety of theatrical performance styles. Material is presented in laboratory and further explored through the applied use in productions. Also, the course explores the basic theories and practical application of stage make-up for theatrical performance, with emphasis on the relationship of color and degree in make-up to color and intensity in stage lighting. Prerequisite: Theatre Arts 20. (Alternate Fall)

#### 135 Advanced Acting (3)

Advanced problems in scene study, characterization, and acting styles. Scene and monologue work emphasizing psychological realism, select classic styles, and absurdism. Prerequisite: Theatre Arts 35 or consent of instructor. (Alternate Spring)

#### 140 Advanced Oral Interpretation (3)

Focus on performance-quality readings of literature culled from multiple genres. Emphasis on vocal/physical warm-up, text choice and analysis, and program preparation. Assignments include approximately ten professor and peer critiqued readings of multi-cultural poetry, comedy, drama and prose, including excerpts from novels, letters, diaries, auto-biographies, fantasy and children's literature, as well as a final performance project. Prerequisite: Theatre Arts 40, or consent of instructor. (Alternate Spring)

#### 145 Directing (3)

Students who have had the necessary preparation will direct a series of scenes in various styles and of increasing complexity. Process will include

the fundamentals of play direction, readings in directorial practice, scene direction. Prerequisite: Theatre Arts 11, 30, and a dramatic literature course, or consent of instructor. (Alternate Spring)

#### 160 History of Theatre: Greeks to the Renaissance (3)

A survey of the history of theatre from the Greeks to the 17th century, with emphasis on techniques, conventions and performance traditions of major theatrical movements. Special focus on the development of the physical theatrical space in terms of the social, political and economic factors of the times. Select dramatic texts from significant periods in Eastern and Western theatre are examined in detail. (Alternate Fall)

#### 165 History of Theatre: 1600 to Present (3)

A survey of the history of theatre from the Restoration through the present day, with emphasis on impulses, techniques, conventions and performance traditions of major theatrical movements. Special focus on the development of the physical theatrical space and the dramatic literature performed there, from the perspective of the social, political and economic factors of the times. Select dramatic texts from significant periods in Eastern and Western theatre are examined in detail. Note: This course may occasionally be offered as a "W" course. (Alternate Spring)

#### 169 Contemporary Theatre (3)

Intensive textual analysis of contemporary plays and playwrights who shape today's theatrical arts, with particular emphasis on production history and current criticism. Readings include European and American playwrights who are writing for theatre today (as Fugard, Shepard, Churchill, Havel), current issues plays, and works in the avant-garde. (Alternate Spring)

#### 194 Special Topics in Theatre (3)

Studies in areas of special interest, for example, a playwright, a theatre, a genre of dramatic composition, a unique theatrical movement, or a particular director.

#### 197 Field Experience in Theatre (1-3)

Practical experience in a field setting under professional supervision. Students complete a minimum of 40 hours of work related to their field of study. For elective credit only. Does not apply to minor. Consent of the instructor.

#### 199 Independent Research or Performance Project (1-3)

Supervised research or creative project on an individual basis. Consent of the instructor.



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*Business Administration*

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## ADVISORY BOARD

The Advisory Board was formed in the Fall of 1973 with the following objectives:

1. To develop and promote sound relations between the USD School of Business Administration and the business and government communities;
2. To seek counsel and advice from competent operating executives on existing and contemplated programs of the School of Business Administration;
3. To act as liaison between the USD School of Business Administration and the San Diego community and the state and national sectors;
4. To advise the dean and the faculty on various matters dealing with business programs, curricula and activities;
5. To help the dean in seeking sources for support of the School of Business Administration programs and facilities;
6. To improve and facilitate recruiting and placement of graduates and alumni/ae; and
7. To advise the USD School of Business Administration on ways and means of effective utilization of human and physical resources in business research projects and programs.

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The major goal of the professional undergraduate business education in the School of Business Administration is to prepare students with an educational foundation for effective and responsible administrative and managerial leadership in both private and public organizations or for related professional

activities. This goal implies educating persons to be responsible individuals in all aspects of their lives in an era of dynamic change. It implies that we aim to educate persons as highly competent professionals who strive for the achievement of the highest values.

The basic orientation of the School is professional, and this dictates a three-part curriculum. The first and most important part is the Foundations Curriculum, the General Education core. An effective leader and professional in this era of change and challenge must be a liberally educated person. It is necessary that our students learn the indispensable competencies of written literacy, mathematical competency, and critical reasoning. Furthermore, it is our objective to help students develop their own internalized value systems and appreciate the diversity of human experience. We believe that a liberal education is a necessary part of a professional education, and we have structured a curriculum that recognizes this as preparation for life.

The second part of the curriculum is the common-body-of-knowledge, those business courses required of all School of Business Administration graduates. This core provides the foundation for a career as a manager or as a business related professional. It provides the student with an understanding of the interaction between the firm and its environment, and an overall view of policy making in an organization. This core, combined with the quantitative and philosophy courses, is designed to help our students become professionals with highly analytical minds.

The third section of the curriculum provides the student an opportunity to specialize and prepare for an entry-level position in the first years of a career. These areas include majors in accountancy, business administration, and business economics. The goal of this portion of the curriculum is to provide the student with the understanding necessary for the development of personal potential early in one's career.

Our goal is to graduate persons who will be able to absorb and use an ever-growing body of knowledge and changing technology and to serve humankind in an ethical manner. The School, therefore, stresses values and the process of learning.

### Degrees Conferred

- Bachelor of Arts in Economics
- Bachelor of Accountancy
- Bachelor of Business Administration

## Bachelor of Arts in Economics

The School of Business Administration offers a program leading to the degree of Bachelor of

### RECOMMENDED COURSE OF STUDY

#### BACHELOR OF ARTS IN ECONOMICS

##### FRESHMAN YEAR

Semester I	Semester II
Economics 11 (3)	Economics 12 (3)
Mathematics 11 (3)	Mathematics 14 (3) or 50 (4)
Preceptorial (3)	GE or
GE or	Electives (9-10)
Electives (6-7)	

##### SOPHOMORE YEAR

Semester I	Semester II
Economics 51 (3)	Economics 52 (3)
Bus 16 (4)	Bus 86 (3)
Accounting 1 (3)	GE or
GE or	Electives (9-10)
Electives (6)	

##### JUNIOR YEAR

Semester I	Semester II
Econ Elective (6)	Econ Electives (6)
GE or	GE or
Electives (9-10)	Electives (9-10)

##### SENIOR YEAR

Semester I	Semester II
Econ Elective (6)	Economics 170 (3)
GE or Electives (9-10)	Econ Elective (3)
	GE or Electives (9-10)

Arts in Economics. The program serves the needs of three types of students: 1) those planning careers in business or government; 2) those intending to pursue post-baccalaureate professional training in business administration, public administration, or law; and 3) those contemplating graduate work in economics. Students majoring in Economics should consult with a faculty advisor to determine an academic program that best suits their interests.

### I. Lower Division Preparation for the Major (19-20 units)

Lower division requirements for the major are:

1. Third semester competency in a foreign language;
2. Completion of the following courses with a grade point average of 2.0 or better with no grade below "C-":  
 Accounting 1 - Principles of Accounting I  
 Business 16 - Quantitative Business Analysis  
 Business 86 - Information Systems



Economics 11 - Principles of Microeconomics  
 Economics 12 - Principles of Macroeconomics  
 Mathematics 14 - Survey of Calculus, or  
 Mathematics 50 - Calculus I  
 Students considering graduate studies in Economics are advised to take Mathematics 50, and Mathematics 51 and 52 are recommended as well.

## II. The Major (30 units)

Upon completion of 60 units and with the approval of the Business School Advising Office, the student becomes eligible for upper division Business School courses. Each student majoring in Economics must complete the following:

Economics 51 - Intermediate Macroeconomics  
 Economics 52 - Intermediate Microeconomics  
 Economics 170 - Applied Econometrics  
 Upper division Economics electives (21 units)

## Minor in Economics

A minor in Economics requires the completion of the following courses for a total of 18 units:

Economics 11 - Principles of Microeconomics  
 Economics 12 - Principles of Macroeconomics  
 Economics 51 - Intermediate Macroeconomics or Economics elective  
 Economics 52 - Intermediate Microeconomics or Economics elective  
 Upper division Economics electives (6 units)

**Note:** The minor in Economics is not available to students pursuing the degrees of Bachelor of Accountancy or Bachelor of Business Administration. Descriptions of courses for the major and minor in Economics can be found under Economics course descriptions.

# Bachelor of Accountancy

The School of Business Administration offers a program leading to the degree of Bachelor of Accountancy. The program prepares students for careers in public and private accounting. Students majoring in Accountancy should consult with their advisors about the courses to elect in order to prepare for the Certified Public Accountant (C.P.A.) Examination, the Certification in Management Accounting (C.M.A.) Examination, graduate work in fields of study related to accounting, or specific fields of government employment.

## I. Lower Division Preparation for the Major (19-20 units)

Lower division requirements for the major are:

1. Third semester competency in a foreign language;
2. Completion of the following courses with a grade point average of 2.0 or better with no grade below "C-":  
 Accounting 1 - Principles of Accounting I  
 Accounting 2 - Principles of Accounting II  
 Business 16 - Quantitative Business Analysis  
 Business 86 - Information Systems  
 Economics 11 - Principles of Microeconomics  
 Economics 12 - Principles of Macroeconomics  
 Mathematics 14 - Survey of Calculus, or Mathematics 50-Calculus I

## II. The Major (48 units)

Upon completion of 60 units and with the approval of the Business School Advising Office, the student becomes eligible for upper division Business School courses. The courses in the accountancy major serve two purposes: 1) they fulfill the common-body-of-knowledge requirement of the American Assembly of Collegiate Schools of Business (AACSB); and 2) they give students a strong background in the field of accountancy. Each student majoring in Accountancy must complete the following:

1. Business Component (24 units)  
 Business 100 - Managing People in Organizations  
 Business 110 - Financial Management  
 Business 130 - Fundamentals of Marketing  
 Business 142 - Business and Society  
 Business 145 - Business Law  
 Business 150 - Management Science  
 Business 153 - Operations Management  
 Business 190 - Business Policy
2. Accounting Component (24 units)  
 Accounting 100A - Intermediate Accounting I  
 Accounting 100B - Intermediate Accounting II  
 Accounting 101 - Advanced Accounting  
 Accounting 102 - Cost Accounting  
 Accounting 103 - Accounting Information Systems  
 Accounting 106 - Federal Tax Accounting  
 Accounting 108 - Auditing  
 Business 146 - Business Law II

Those students majoring in Accountancy may transfer no more than two courses in upper division accounting to USD.

## RECOMMENDED PROGRAM OF STUDY

### BACHELOR OF ACCOUNTANCY

#### FRESHMAN YEAR

Semester I	Semester II
Economics 11 (3)	Economics 12 (3)
Mathematics 11 (3)	Mathematics 14 (3)
Preceptorial (3)	or 50 (4)
GE or	GE or
Electives (6-7)	Electives (9-10)

#### SOPHOMORE YEAR

Semester I	Semester II A
Accounting 1 (3)	Accounting 2 (3)
Bus 16 (4)	Bus 86 (3)
GE or	GE or
Electives (9)	Electives (9-10)

#### JUNIOR YEAR

Semester I	Semester II
Acct 100A (3)	Acct 100B (3)
Acct 102 (3)	Acct 103 (3)
Bus 100 (3)	Bus 130 (3)
Bus 110 (3)	Bus 142 (3)
GE or	GE or
Elective (3-4)	Elective (3-4)

#### SENIOR YEAR

Semester I	Semester II
Acct 101 (3)	Acct 108 (3)
Acct 106 (3)	Bus 190 (3)
Bus 145 (3)	Bus 146 (3)
Bus 150 (3)	Bus 153 (3)
GE or	GE or
Elective (3-4)	Elective (3-4)

## Minor in Accountancy

A minor in Accountancy requires the completion of the following courses for a total of 19 units:

Accounting 1 - Principles of Accounting I  
 Accounting 2 - Principles of Accounting II  
 Business 86 - Information Systems  
 Accounting 100A - Intermediate Accounting I  
 Accounting 102C - Cost Accounting  
 Upper division Accounting elective (3 units)

**Note:** The minor in Accountancy is not available to students pursuing the degree of Bachelor of Business Administration. Description of courses for the major and minor in Accountancy can be found under Accounting course descriptions.



# Bachelor of Business Administration

The School of Business Administration offers a program leading to the degree of Bachelor of Business Administration, with majors in Business Administration and Business Economics.

## I. Lower Division Preparation for the Major (19-20 units)

Lower division requirements for the major are:

1. Third semester competency in a foreign language;
2. Completion of the following courses with a grade point average of 2.0 or better with no grade below "C-":
  - Accounting 1 - Principles of Accounting I
  - Accounting 2 - Principles of Accounting II
  - Business 16 - Quantitative Business Analysis
  - Business 86 - Information Systems
  - Economics 11 - Principles of Microeconomics
  - Economics 12 - Principles of Macroeconomics
  - Mathematics 14 Survey of Calculus, or
  - Mathematics 50-Calculus I

## II. The Major (39 units)

Upon completion of 60 units and with the approval of the Business School Advising Office, the student becomes eligible for upper division Business School courses. Students can major in either Business Administration or Business Economics. Twenty-four upper division units of the major requirements for the B.B.A. must be completed at USD.

### Major in Business Administration

The Business Administration major prepares students for careers in business management or public administration and for post-baccalaureate studies in business. The courses in the business administration major serve two purposes: 1) they fulfill the common-body-of-knowledge requirement of the American Assembly of Collegiate Schools of Business (AACSB); and 2) they give students electives in order to explore their interests in the field of business administration. Each student majoring in Business Administration must complete the following:

1. Business Component (24 units)
  - Business 100 - Managing People in Organizations
  - Business 110 - Financial Management
  - Business 130 - Fundamentals of Marketing

Business 142 - Business and Society  
 Business 145 - Business Law  
 Business 150 - Management Science  
 Business 153 - Operations Management  
 Business 190 - Business Policy

2. Elective Component (15 units)
  - Business 101-109 - Management elective (3)
  - Business 111-120 - Finance elective (3)
  - Bus 131-139, 170 - Marketing elective (3)
  - Upper division electives in Accountancy, Business Administration or Economics (6)

To fulfill the six upper division elective units above, students may select any six upper division units in the School of Business Administration or six units from one of the following concentrations:

### Finance

Business 111 - Financial Institutions  
 Business 112 - Investments  
 Business 115 - International Finance  
 Business 120 - Principles of Real Estate  
 Business 173 - Contract Pricing  
 Business 194 - Special Topics\*

### Management

Business 101 - Organizational Theory  
 Business 103 - Interpersonal Relations  
 Business 104 - Entrepreneurship and New Ventures  
 Business 105 - Human Resource and Career Development  
 Business 106 - Women in Management  
 Business 107 - Human Resource Management  
 Business 108 - Management in the Small and Family Business  
 Business 109 - International Comparative Management  
 Business 194 - Special Topics\*

### Marketing

Business 131 - Services Marketing  
 Business 132 - Marketing Research  
 Business 133 - Retailing  
 Business 134 - Advertising  
 Business 135 - Personal Selling  
 Business 136 - Consumer Behavior  
 Business 137 - International Marketing  
 Business 139 - Advanced Marketing Project  
 Business 170 - Procurement Management  
 Business 194 - Special Topics\*

### Procurement Management

Business 138 - Purchasing Management  
 Business 170 - Procurement Management  
 Business 173 - Contract Pricing  
 Business 177 - Negotiation

### Real Estate

Business 120 - Principles of Real Estate  
 Business 125 - Financing Real Estate  
 Business 127 - Real Estate Law  
 Business 194 - Special Topics\*

## RECOMMENDED PROGRAM OF STUDY BACHELOR OF BUSINESS ADMINISTRATION (Major: Business Administration)

### FRESHMAN YEAR

Semester I	Semester II
Economics 11 (3)	Economics 12 (3)
Mathematics 11 (3)	Mathematics 14 (3)
Preceptorial (3)	or 50 (4)
GE or Electives (6-7)	GE or Electives (9-10)

### SOPHOMORE YEAR

Semester I	Semester II
Accounting 1 (3)	Accounting 2 (3)
Bus 16 (4)	Bus 86 (3)
GE or Electives (9)	GE or Electives (9-10)

### JUNIOR YEAR

Semester I	Semester II
Bus 100 (3)	Bus 142 (3)
Bus 110 (3)	Bus 150 (3)
Bus 130	Bus Elective (3)
GE or Electives (6-7)	GE or Elective (6-7)

### SENIOR YEAR

Semester I	Semester II
Bus 145 (3)	Bus 190 (3)
Bus 153 (3)	Bus Electives (6)
Bus Electives (6)	GE or Electives (6-7)
GE or Elective (3-4)	

Economics 104 - Urban Economics  
 Economics 129 - Real Estate Economics

\*No more than three units of Special Topics may be used as part of the concentration requirements. Use of Special Topics courses in the concentration is subject to approval of the Business School Advising Office.

### Minor in Business Administration

A minor in Business Administration requires the completion of the following courses for a total of 18 units:

Accounting 1 - Principles of Accounting I  
 Economics 11 - Principles of Microeconomics  
 Economics 12 - Principles of Macroeconomics  
 Business 100 - Managing People in Organizations  
 Upper division Business Administration electives (6)



**Note:** The minor in Business Administration is not available to students pursuing the degrees of Bachelor of Accountancy or Bachelor of Business Administration. Description of courses for the major and minor in Business Administration can be found under Business Administration course descriptions.

### Major in Business Economics

The Business Economics major prepares students for careers in business management or public administration and for post-baccalaureate studies in business, economics, or law. The courses in the business economics major serve two purposes: 1) they fulfill the common-body-of-knowledge requirement of the American Assembly of Collegiate Schools of Business (AACSB); and 2) they give students a strong background in the field of economics. Each student majoring in Business Economics must complete the following:

1. Business Component (21 units)
  - Business 100 - Managing People in Organizations
  - Business 110 - Financial Management
  - Business 130 - Fundamentals of Marketing
  - Business 142 - Business and Society
  - Business 145 - Business Law I
  - Business 153 - Operations Management
  - Business 190 - Business Policy
2. Economics Component (18 units)
  - Economics 51 - Intermediate Macroeconomics
  - Economics 52 - Intermediate Microeconomics
  - Economics 170 - Applied Econometrics
  - Economics 173 - Managerial Economics
  - Upper division Economics electives (6)

Description of courses for the major in Business Economics can be found under Economics course descriptions.

## ACCOUNTING COURSE DESCRIPTIONS (ACCT)

### 1 Principles of Accounting I (3)

Introduction to accounting records, their purpose and use, emphasizing the establishment of a solid conceptual background. Preparation of financial statements and examination of accounting procedures for specific asset, liability, and owner's equity accounts are among the topics in the first semester. Prerequisite: Sophomore standing.

### 2 Principles of Accounting II (3)

Introduction of managerial accounting information for planning, controlling, and making decisions within a firm. Current changes to the business environment and their impact on accounting are also presented. Prerequisite: Accounting I.

## RECOMMENDED PROGRAM OF STUDY BACHELOR OF BUSINESS ADMINISTRATION (Major: Business Economics)

### FRESHMAN YEAR

Semester I	Semester II
Economics 11 (3)	Economics 12 (3)
Mathematics 11 (3)	Mathematics 14 (3)
Preceptorial (3)	or 50 (4)
GE or Electives (6-7)	GE or Electives (9-10)

### SOPHOMORE YEAR

Semester I	Semester II
Economics 51 (3)	Economics 52 (3)
Bus 16 (4)	Bus 86 (3)
Accounting 1 (3)	Accounting 2 (3)
GE or Electives (6)	GE or Electives (6-7)

### JUNIOR YEAR

Semester I	Semester II
Econ Elective (3)	Econ Elective (3)
Bus 100 (3)	Bus 130 (3)
Bus 110 (3)	Bus 153 (3)
GE or Electives (6-7)	GE or Electives (6-7)

### SENIOR YEAR

Semester I	Semester II
Economics 170 (3)	Economics 173 (3)
Bus 142 (3)	Bus 190 (3)
Bus 145 (3)	GE or Electives (9-10)
GE or Electives (6-7)	

### 100A Intermediate Accounting I (3)

Emphasis is placed upon corporate organization with a comprehensive study of current assets, tangible, fixed assets, intangible assets, liabilities, and net assets. Recent developments in accounting theory and their impact on financial reporting are illustrated. Prerequisite: Accounting 2.

### 100B Intermediate Accounting II (3)

Topics covered include accounting for partnership and corporate equities, long-term financing, tax allocation, long-term investments, and changes in financial position. Prerequisite: Accounting 100A.

### 101 Advanced Accounting (3)

Accounting and reporting for business combinations, foreign currency transactions, partnerships, and not-for-profit organizations such as governments, charities, universities, and hospitals. Prerequisite: Accounting 100B.

### 102 Cost Accounting (3)

Sources of data and preparation of financial statements in manufacturing organizations are studied. Primary emphasis is on costs for control, decision processes internal to the firm, including standards of performance, relevant costs for decisions, budgets and capital investment considerations. Prerequisites: Accounting 2 and Business Administration 86.

### 103 Accounting Information Systems (3)

Information requirements and transaction processing procedures relevant to integrated accounting systems. The course emphasizes accounting system design, analysis and the related internal controls. Prerequisites: Accounting 100A and 102.

### 106 Federal Tax Accounting I (3)

Prevailing tax law is studied with special emphasis on what constitutes taxable income and allowable deductions for individual taxpayers. Problems and preparation of tax returns are used to illustrate course material. Prerequisite: Accounting 2.

### 107 Federal Tax Accounting II (3)

Emphasis is on tax accounting for partnerships, corporations, estates, and trusts. Prerequisite: Accounting 106.

### 108 Auditing (3)

Intensive introduction to the attest function in society today. The environment, the process, and the report of the public auditor are analyzed. Potential extensions of the attest function are examined. Prerequisite: Accounting 103.

### 114 Estate Planning (3)

Cross-listed as Business Administration 148.

### 194 Special Topics (3)

Topics of current interest in accounting. Course content and structure will differ depending on instructor. Students should consult their advisors for course description for any given semester. May be repeated for credit once. Prerequisite: Consent of instructor.

### 198 Internship (3)

Experiential learning working in a business, government, or non-profit organization. Placements provide the opportunity for practical application of accounting, business, and economics principles. Placement must emphasize accounting field. See *Schedule of Classes* for special meeting times. **This course may not be repeated for credit.** Prerequisite: Accounting, business, or economics major or minor, upper division standing, and completion of several courses in accounting, business and/or economics relevant to the internship position.



**199 Independent Study (1-3)**

Independent study including empirical research and written reports. A maximum of three units of independent study may be used to satisfy requirements for the major. Prerequisites: Senior standing and consent of instructor.

## **BUSINESS ADMINISTRATION COURSE DESCRIPTIONS (BUS)**

**16 Quantitative Business Analysis (4)**

A systematic exposure to the issues and problems of applying and interpreting statistical analyses of business situations. Topics include: descriptive statistics; probability; random variables and their distributions; statistical inference; multiple regression and residual analysis; correlation; classical time-series models; and forecasting. Extensive computer analysis of data. Prerequisite: Mathematics 14 or 50.

**86 Information Systems (3)**

An introduction to computer-based information systems. Topics include: computer hardware; software; data processing procedures; systems development; and human resources and their applications in business. The fundamentals of computer problem-solving using software packages on mini- and microcomputers are addressed.

**100 Managing People in Organizations (3)**

The study of human behavior in organizational settings. Topics addressed in this micro-level course include: perceptual processes; personality; learning; motivation; attitudes; stress; group dynamics; intergroup behavior; conflict; power; politics; leadership; and cross-cultural implications. Behavioral science concepts are applied through self-assessment, case studies, and experiential exercises.

**101 Organizational Theory and Management Practice (3)**

An analysis of the theories of organizational design, structure, development and effectiveness from a managerial perspective. Topics addressed in this macro-oriented course include: systems theory; analysis of organization environments and their impact on organizations; organizational purposes, goals, and planning; organizational decision-making processes; technology and alternative organizational designs; information and control systems; functions of management; job design; environment organization interface; and international and contemporary management issues. Prerequisite: Business Administration 100.

**103 Interpersonal Relations (3)**

An advanced course covering theories, research, and skill development in the area of interpersonal relations. Topics covered include: interpersonal influence; conflict; emotional styles; communication; group roles; non-verbal behavior; and personal growth. Course concepts are integrated with classroom exercises and outside

organizational experiences to provide the student with both knowledge and skills for interacting effectively with others in managerial and personal situations. Prerequisite: Business Administration 100.

**104 Entrepreneurship and New Ventures (3)**

An examination of the problems and processes for launching and/or purchasing business ventures. Topics include: the nature and role of the entrepreneur; identifying and assessing potential opportunities for new ventures; structuring and staffing the new venture; preparing the business plan; attracting venture capital; and dealing with key legal issues. Prerequisites: Business Administration 100, 110, and 130.

**105 Human Resource and Career Development (3)**

Study of the development of careers in work organizations; principles of human resource skill development and patterns of success; models for understanding individual and organizational career assessment and development; principles of stress and coping mechanisms in career activities; attention to successful individual and organizational practices. Particular emphasis on careers in management. Prerequisite: Senior standing.

**106 Women in Management (3)**

This course is designed to give women a repertoire of skills needed in various work-related situations. The course examines management requirements for various organizational levels, and stresses the difference between personal and organizational issues.

**107 Human Resource Management (3)**

An introduction to the roles of both the staff specialist and manager in regard to the personnel function. Topics include but are not limited to: staffing; compensating; training; appraising; and developing an organization's human resources as well as labor laws and labor relations. Prerequisite: Business Administration 100.

**108 Management in the Small and Family Business (3)**

Application of the basic business disciplines to the small and family business environment. Examines both growth-oriented small firms on the way to becoming large firms and the small, income-substitution firm. Issues include: managing to provide for the survival and growth of the small business; how smallness influences management processes such as recruitment and motivation of employees; how smallness influences marketing, finance, operations, and other functional areas within the small firm; family issues affecting family businesses such as conflict between family and business roles, CEO succession, etc. Prerequisites: Business Administration 100, 110, and 130.

**109 International Comparative Management (3)**

Addresses the dilemmas and opportunities that managers face as they work in multicultural and global environments. The main objective of the course is to increase the effectiveness of managers/employees in identifying, understanding, and managing the cultural components of organizational dynamics. Focuses on the relationships between cultural values and the practice of managing people. Prerequisite: Business Administration 100.

**110 Financial Management (3)**

A study of the forms, sources, and management of business capital. The finance function and its relation to other business functions and to general policy objectives is considered. Topics include capital requirement, short and intermediate financing, management of current assets, capital budgeting, and the cost of capital. Prerequisites: Accounting 1, Economics 2, and Business Administration 16.

**111 Financial Institutions (3)**

An examination of the interaction among financial institutions, financial markets and the economy. Topics include the trends of financial institutions, interest rate structure and the security and mortgage markets. Prerequisite: Business Administration 110.

**112 Investments (3)**

Surveys the basic principles and techniques of investment analysis. Market analysis methods are examined critically and sources of analytical information and their use are studied. Prerequisite: Business Administration 110.

**115 International Financial Management (3)**

An introduction to the problems facing the financial management of international companies. Topics include foreign exchange exposure management, financing trade, foreign direct investments, international accounting and control and working capital management. Prerequisite: Business Administration 110.

**120 Principles of Real Estate (3)**

A study of the principles and practices surrounding real estate assets within the U.S. financial markets. An investigation of urban economic forces on financing, investment and valuation decisions and legal effects on market efficiency. Prerequisite: Business Administration 110.

**125 Financing Real Estate (3)**

An overview of the financial markets and institutions through which residential and commercial real estate are financed. Focus includes government legislation and regulation and how they affect the cost and availability of real estate financing. Includes discussions of the role played by trade associations and the media in government policymaking affecting real estate finance. Prerequisite: Business Administration 110.



**127 Real Estate Law (3)**

Study of legal issues relating to ownership, transfer, and development of real property (land) with emphasis on methods of streamlining transactions and preventing legal problems. Prerequisite: Business Administration 145.

**130 Fundamentals of Marketing (3)**

An introduction to the critical role of marketing in our society with emphasis on the marketing concept, product, price, distribution, and promotion. Prerequisite: Economics 2.

**131 Services Marketing (3)**

Examines the key characteristics that distinguish services from traditional goods marketing. Critical dimensions which customers utilize to determine quality services are emphasized. Attention is directed towards the development and demonstration of interpersonal and problem solving skills. Learning activities can include: case analysis; marketing plan; and client-sponsored projects. Prerequisite: Business Administration 130.

**132 Marketing Research (3)**

Emphasis is placed on the relationship between marketing research and the business decision. A complete marketing research project is developed. Topics include research methodology and the business function, problem formulation and the role of research, data collection and analysis. Prerequisites: Business Administration 16 and 130.

**133 Retailing (3)**

Essentials of retail management; market-segmentation and market research for retail operations; buying and pricing functions; inventory control; budgeting.

**134 Advertising (3)**

The role of advertising in society, business, and marketing; human behavior; market selection; media planning; advertising appeals; preparation of copy; research decisions, and the campaign approach to advertising are covered. An actual advertising campaign is planned and developed as a requirement of the course. Prerequisite: Business Administration 130.

**135 Personal Selling (3)**

Examines the role of personal selling in a firm's promotion and marketing strategy, and presents the principles and methods of persuasive communication. Concepts from the behavioral sciences are explored to show their application in sales situations. Attention is focused on the development and demonstration of effective sales presentation techniques. Prerequisite: Business Administration 130.

**136 Consumer Behavior (3)**

Analysis of consumer behavior and motivation, principles of learning, personality, perception and group influence, with emphasis

upon mass communications effects. Prerequisite: Business Administration 130.

**137 International Marketing (3)**

An analysis of key international marketing activities and functions. Topics include: environmental constraints; exporting; international product planning; and international selling and advertising. The various concepts are integrated through the development of a complete international plan for the marketing of a product in another country. Prerequisite: Business Administration 130.

**139 Advanced Marketing Project (3)**

This course offers the opportunity to implement the basic fundamentals of marketing through an experiential learning situation, simulation, case analysis, or combination of these. May involve interaction with business or other organizations in the execution of marketing strategy. **This course may not be repeated for credit.** Prerequisite: Business Administration 130.

**141W Business Communication (3)**

Analysis of the factors involved in planning, organizing, and writing in the business environment. Extensive practice in presenting effective letters, memoranda, and business reports using primary and secondary sources. **This course satisfies the University requirement of an upper division writing course.**

**142 Business and Society (3)**

Study of the environment in which business operates, the contributing obligations, and relationships of business and society to one another. Prerequisite: Business Administration 100.

**143 Environmental Management (3)**

Study of the types of business activities that are affected by environmental issues and how companies cope with them. Examines the ramifications for business and government of existing public policy. Also examines whether there is an inherent conflict between environmental protection and business profits, or whether environmental protection is cost effective, and ultimately leads to sustainable economic growth.

**145 Business Law I (3)**

Study of the legal environment in which profit and not-for-profit organizations operate. Includes study of courts and procedure, criminal law, torts, contracts, and formation, operation and termination of agency and partnership relationships. Case study.

**146 Business Law II (3)**

Continued study including such topics as creation, operation and termination of corporations, sale of goods, property, and negotiable instruments. Case study. Prerequisite: Business Administration 145.

**148 Estate Planning (3)**

Fundamentals of planning for administration and disposition of estates; property; wills and trusts; protective proceedings; taxation; and probate. Cross-listed as Accounting 114. Prerequisite: Accounting 2.

**150 Management Science (3)**

An introduction to model formulation and solution techniques emphasizing their applications in decision making. Topics include: linear programming; transportation and assignment models; Markov analysis; network analysis; queuing models; and decision analysis. Prerequisite: Business Administration 16.

**153 Operations Management (3)**

An introductory analysis of operations, planning, control, and improvement in services and manufacturing industries. Topics include: forecasting; process design; scheduling; inventories; just-in-time production (JIT); productivity; and quality management. Prerequisite: Business Administration 16.

**161 Introduction to International Business (3)**

An introduction to the international dimension of doing business. The purpose of this course is to make the student aware of the role played by culture, geography, government, and economics in shaping the environment in which businesses operate internationally. Topics include forward currency markets, foreign direct investment, negotiation, international distribution, etc. Prerequisite: Senior standing.

**170 Procurement Management (3)**

This course examines the procurement system's contribution to meeting an organization's need to produce quality products, at competitive prices, in a timely manner. Purchasing's roles in the development of new products and services, identification and selection of the "right" source, at the "right" price, together with the development and nurturing of partnerships and strategic alliances are developed. Course principles are applicable to manufacturing, retailing, service, not-for-profit and governmental agencies.

**173 Contract Pricing (3)**

This course provides students an opportunity to apply modern contract pricing concepts, principles, and techniques. Topics covered include: the economic principles underlying pricing; price analysis; cost analysis; cost volume-profit analysis; and negotiation. Prerequisites: Accounting 2, Economics 2, and Business Administration 170.

**177 Negotiation (3)**

An introduction to the process of fair and business-like bargaining between parties with interdependent needs. Experience is gained in the use of both adversarial and integrative negotiating principles and techniques. The role of mediators is explored and some of the issues involved in cross-cultural negotiations are examined.



**185 Management Information Systems (3)**

Introduction to information science concepts, principles and methodologies required for managing the various information activities and resources of an organization. The course provides the student with the skills necessary to diagnose managerial information requirements and analyze trends both in the information industry and in the managerial use of information products and service. Prerequisite: Business Administration 86.

**190 Business Policy (3)**

This course develops skills in problem analysis and decision-making in areas of corporate strategy and business policy. It is the integrating course of the undergraduate program and will concentrate on the application of concepts through case studies and decision simulation exercises. Prerequisite: Second semester senior standing.

**192 Strategy Simulation (3)**

Students will manage a company in a computer-simulated oligopolistic industry. They will compete against companies managed by students from five other schools. Students will write detailed business plans, prepare budgets, and submit annual reports to shareholders while making management decisions for their company for 20 simulated quarters. Prerequisite: Written consent of instructor after competitive evaluation.

**193 Comparative International Management Seminar (3)**

A study of international business practices through conferences with executives and managers in foreign countries. Students will travel abroad and meet with executives in various foreign cities. A comparative approach will be used.

**194 Special Topics (3)**

Topics of current interest in business administration. Course content and structure will differ depending on instructor. Students should consult their advisors for course description for any given semester. May be repeated once for credit. Prerequisite: Consent of instructor.

**198 Internship (3)**

Experiential learning working in a business, government, or non-profit organization. Placements provide the opportunity for practical application of business, economics, and accounting principles. See *Schedule of Classes* for special meeting times. **This course may not be repeated for credit.** Prerequisite: Business, economics, or accounting major or minor, upper division standing, and completion of several courses in accounting, business and/or economics relevant to the internship position.

**199 Independent Study (1-3)**

Independent study including library or empirical research and written reports. A maximum of three units of independent study may be used to satisfy requirements for the major. Prerequisites: Senior standing and consent of the instructor.

**ECONOMICS COURSE DESCRIPTIONS (ECON)****11 Principles of Microeconomics (3)**

An introduction to consumer behavior and the theory of the firm. Topics include the demand behavior of households, the supply behavior of business firms, and an introduction to market structure.

**12 Principles of Macroeconomics (3)**

The study of the operation of the American economy in an international setting examining the interaction of households, business firms, government and the rest of the world in resource, product and financial markets. Topics include national income accounting and analysis, business fluctuations, inflation, unemployment and monetary and fiscal policy. Prerequisite: Economics 11.

**51 Intermediate Macroeconomics (3)**

Examines the causes of fluctuations in important national economic variables, such as aggregate output, interest rates, the rate of inflation, the rate of unemployment, and exchange rates. Investigates the feasibility of stabilizing the economy through the use of fiscal and monetary policy. Prerequisite: Economics 12.

**52 Intermediate Microeconomics (3)**

The economic theory of demand, production, product and input markets, welfare, and general equilibrium. Applications of price theory including its use in evaluating and forming public policy. Prerequisite: Economics 11.

**102 Public Finance (3)**

An introduction to public sector economics concentrating on the revenues and expenditures of federal, state and local governments. Topics include: public goods; externalities; voting theory; cost benefit analysis; and the study of taxation and government transfer programs. Prerequisite: Economics 12.

**104 Urban Economics (3)**

The application of economic analysis to urban and regional areas. Topics include the theory underlying urbanization and the location of economic activity, the methodology utilized to analyze urban and regional economies, and problems and policies related to urban areas, such as housing, poverty, transportation, and local public finance. Special attention will be given to the San Diego metropolitan area. Prerequisite: Economics 11.

**108 Environmental and Natural Resource Economics (3)**

An analysis of the economic principles that underlie the allocation, pricing, and use of natural resources. Topics include the intertemporal allocation of depletable resources, the economics of fisheries and forestry, issues in the distribution and use of water resources, the economics of recycling and waste disposal, and economic perspectives on global warming and ozone depletion. Prerequisite: Economics 11.

**110 Money and Banking (3)**

A study of the structure, regulation and performance of the banking industry in the United States focusing on the strategy and procedures of the Federal Reserve System. Examines the problems encountered by the Federal Reserve System in trying to achieve its goals. Prerequisite: Economics 12.

**121 Women and Work (3)**

Analysis of women's market and non-market work activities. Topics include: gender roles; allocation of time; occupational distribution; earnings; government programs and their impact by gender; and the role of women and work in other countries. Prerequisite: Economics 11.

**122 Labor Economics (3)**

An analysis of the operation of labor markets focusing on the market system for wage determination. Topics include the supply and demand for labor, wage determination under various market structures, human capital formation, discrimination in labor markets, collective bargaining and the structure of pay, unemployment and wage inflation. Prerequisite: Economics 11.

**124 Industrial Organization (3)**

Examines the role of different industrial structures in the performance of industrial markets, including the influence of different structures on major competitive forces in the market: entry, threat of substitution, bargaining power of buyers, bargaining power of suppliers and rivalry among current competitors. Develops competitive strategies in various industrial environments. Prerequisite: Economics 11.

**127 Law and Economics (3)**

The application of economic methodology to the principal areas of law: property, contracts, torts, and crime. The economic concepts of maximization, equilibrium, and efficiency are used to examine the consequences of existing and proposed laws and legal institutions. Prerequisite: Economics 11.

**129 Real Estate Economics (3)**

An analysis of the economic principles that underlie the market for real estate. Topics include an evaluation of land resource requirements, input-output analysis in land use, economic foundations of valuation of land and improvements, taxation issues in real estate, and land use policy. Prerequisite: Economics 11.



**133 International Economics (3)**

The theory, practice, and institutions of the international economy. Topics include: international trade and investment; the European Economic Community; balance of payments; foreign exchange rate determination; multinational enterprises; trade with developing countries; and international economic policy. Prerequisite: Economics 12.

**135 Economic Development of Latin America (3)**

An analysis of the determinants of economic development and growth in Third World countries, in general and Latin America in particular, along with associated problems and policies. Topics include: theories and policies concerning population; income distribution; education; capital formation; finance; agriculture; industry; trade and economic planning. Prerequisite: Economics 12.

**137 Economic Development of Asia (3)**

An analysis of the determinants of economic development and growth in Asia and the Pacific Rim, along with associated problems and policies. Topics include: theories and policies concerning industry; agriculture; domestic savings and investment; human resources; international trade; foreign capital; and external debt. Prerequisite: Economics 12.

**140 History of Economic Thought (3)**

Development of economic doctrines: theories of mercantilism; physiocracy; classicism; Marxism; the Keynesian revolution; monetarism; and supply side theories. Prerequisite: Economics 12.

**170 Applied Econometrics (3)**

The study of the construction and estimation of econometric models and econometric research. This project-oriented course is designed to integrate economic theory with econometric analysis. Prerequisites: Economics 51, 52, and Business Administration 16.

**171 Business Cycles and Forecasting (3)**

Examines the business cycle and techniques for forecasting fluctuations. The emphasis of the course is to gain hands-on exposure to specific business forecasting techniques and learn to apply them to limit the range of uncertainty in management decision making. Specific techniques covered include: lead-lag; exponential smoothing; econometric and arima (Box-Jenkins) time series analysis. Prerequisites: Economics 12 and Business Administration 16.

**173 Managerial Economics (3)**

The application of analytical techniques and economic principles to analyze typical problems encountered by managers. Topics include: risk analysis; demand analysis; sales forecasting; production analysis; cost estimation; pricing decisions and capital budgeting. Prerequisites: Economics 12 and Business Administration 16.

**180 Advanced Economic Theory (3)**

An introduction to mathematical techniques used to analyze economic problems to gain a deeper understanding of economic decision-making through the use of mathematical models. Topics include: comparative statics; optimization problems; dynamics; and mathematical programming. Mathematical techniques covered include matrix algebra; differential and integral calculus; differential equations; and difference equations. Prerequisites: Economics 12 and Mathematics 14 or 50.

**194 Special Topics (3)**

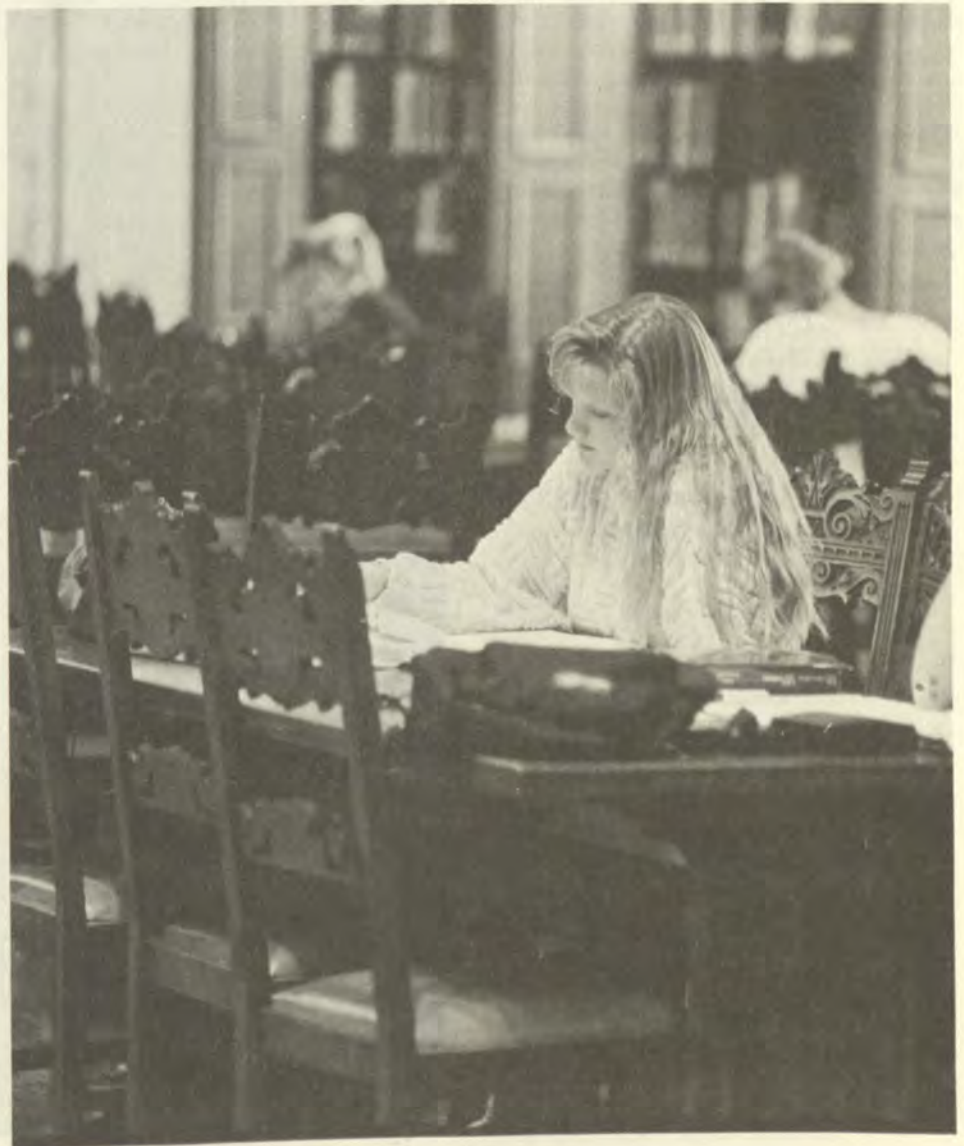
Topics of current interest in economics. Course content and structure will differ depending on instructor. Students should consult their advisors for course description for any given semester. May be repeated for credit once. Prerequisite: Economics 12 and consent of instructor.

**198 Internship (3)**

Experiential learning working in a business, government, or non-profit organization. Placements provide the opportunity for practical application of economics, business, and accounting principles. Placement must emphasize economics field. See *Schedule of Classes* for special meeting times. **This course may not be repeated for credit.** Prerequisite: Economics, business, or accounting major or minor, upper division standing, and completion of several courses in accounting, business and/or economics relevant to the internship position.

**199 Independent Study (1-3)**

Study of economic theory and public policy through selective readings and research. A maximum of three units of independent study may be used to satisfy requirements for the major. Prerequisites: Economics or Business Economics major, senior standing, and consent of instructor.





SCHOOL OF

# Education

Edward F. DeRoche, Ph.D., Dean

Linda Linstrom, Ed.D.,

Assistant to the Dean

Jerome J. Ammer, Ph.D.

Donna Barnes, Ph.D.

Richard Bischoff, Ph.D.

Kathryn Bishop, Ph.D.

Stephen Gelb, Ph.D.

C. Bobbi Hansen, Ed.D.

Evelyn Hanssen, Ph.D.

Johanna S. Hunsaker, Ph.D.

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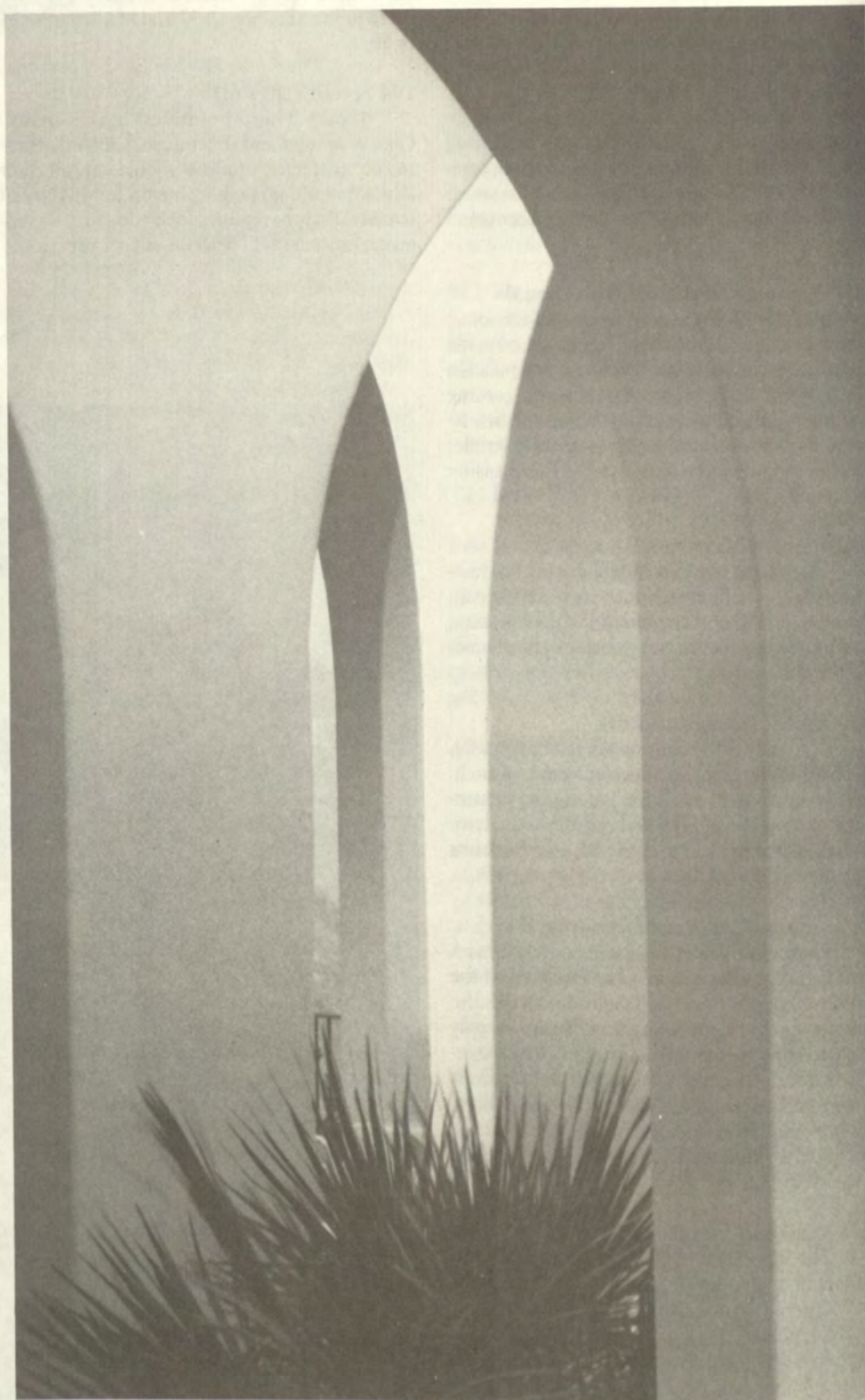
Jo Ellen Patterson, Ph.D.

Joseph Rost, Ph.D.

Mary Scherr, Ph.D.

Lee Williams, Ph.D.

Susan Zgliczynski, Ph.D.





## SCHOOL OF EDUCATION

The School of Education is a professional school whose purpose is to prepare professionals for leadership roles in teaching, counseling, and administration in school and non-school settings.

The School of Education offers credential and degree programs in various professional areas including elementary, secondary, bilingual, and special education. These programs are designed to meet the credential requirements of the State of California and to provide students a sequential curriculum that includes field experiences with class sizes which facilitate personal attention and instructor accessibility.

In addition, the School of Education offers undergraduates the opportunity to enroll in the Leadership Minor, the American Humanics Program, and several special courses designed to meet the needs and interest of all undergraduates.

At the graduate level, the School of Education offers a Master of Arts (M.A.), Master of Education (M.Ed.), Master of Arts in Teaching (M.A.T.), and the Doctorate in Educational Leadership (Ed.D.). Please refer to the *Graduate Bulletin*.

The School of Education offers credential and placement services for its students. The Credential and Placement office is housed in the annex behind Harmon Hall.

All School of Education graduate programs are applicable to the fifth year requirement for the Professional Clear Teaching Credential.

### Dates/Deadlines

It is the student's responsibility to meet the deadlines published in this *Bulletin*.

## TEACHER AND SPECIAL EDUCATION PROGRAMS

### Admission to the Program

Undergraduate students interested in a teaching career must complete the declaration of major form and an application form in the School of Education. An interview with a director or a member of the faculty should be arranged as early as possible in the freshman or sophomore year to assure that all requirements can be completed on schedule within the baccalaureate program. Formal admission to the program is not granted until the student has attained sophomore status. A cumulative grade point average of at least 2.5 is required on entry and continuously throughout the credential program.

The California Basic Educational Skills Test (CBEST) is required prior to admission to the credential program. Undergraduate students should take this test in their sophomore year and submit the scores with their application. The CBEST is offered several times throughout the year in various locations. The test must be passed prior to the awarding of a credential and/or prior to obtaining a teaching position in

the public schools in California.

The professional education coursework should be integrated with multiple subject or single subject courses beginning with the second semester sophomore year. A full semester of full-day student teaching is required, and is usually done after all coursework has been completed.

### Credentials

Two programs are offered to prepare teacher candidates: the Multiple Subject Credential and the Single Subject Credential. All teaching credentials under the Teacher Preparation and Licensing Law of 1970 (Ryan Act) are issued for twelfth grade and below. The Multiple Subject Credential is the appropriate credential for self-contained classrooms, for example, in elementary schools, or in continuation high schools, or in some middle schools. The Single Subject Credential is the appropriate credential for subject matter classrooms, for example, in junior or senior high schools, or in certain elementary or middle schools.

### Bilingual Emphasis

Undergraduate students may elect to enroll concurrently in the Bilingual Emphasis (Spanish) credential program and the Multiple Subject Credential Program. Oral and written fluency in the Spanish language is expected before the student receives a credential recommendation. Advisors in the School of Education and in the Department of Foreign Languages and Literatures should be consulted as soon as possible in the freshman or sophomore year to plan an appropriate program. A test of Spanish language fluency is required for entry and exit in the Bilingual Emphasis program. Students who complete this program are able to teach in both English-speaking elementary classrooms and bilingual Spanish/English elementary classrooms. Employment opportunities are enhanced when a student has more than one credential area.

Students may enter credential programs as undergraduates and complete the approved program as part of a baccalaureate degree.

### Special Education Program

This program is a multiple entry program which allows both undergraduate students and graduate students, with a variety of academic backgrounds, to pursue an appropriate credential and/or graduate degree.

The programs include a generic preparation in the education of all students with disabilities. In addition, the student has the option of selecting one of two advanced specialization areas. These areas are a) Severe Handicaps, which includes students with severe or multiple physical and mental disabilities, and students with autism; b) Learning Handicaps, which includes students with mild disabilities and learning disabilities.

The requirements of each program may vary for individual students based upon their academic and experiential backgrounds. The candidate and advisor make the final decisions on the program requirements.

In order to obtain a State of California teaching credential, all students in Special Education must also qualify for a basic teaching credential. At the undergraduate level, students seeking a program in Special Education should enroll concurrently in the Multiple Subject Credential program with the Diversified Liberal Arts major. Through cooperative planning, a combined program will be designed by faculty from both programs prior to each registration. A separate application for admission to each program must be filed by the student. Completion of the Multiple Subject Credential and a Specialist in Special Education Credential requires a minimum of five years of study.

### Undergraduate Special Education Minor

Students wishing to complete an undergraduate minor of 18 units in Special Education may do so either as part of the combined Multiple Subject/Special Education Credential program or simply as a minor in addition to a major. By completing special education coursework at the undergraduate level, students will reduce the number of units required for the Special Education Specialist Credential at the graduate level. Subject to modification and dependent upon the candidate's preparation, the suggested course option for the minor is as follows:

EDSP 186 - Behavior Management Skills in Education (3)*	Senior
EDSP 190 - Exceptional Individuals (3)	Sophomore
EDSP 192 - Psychology of Individuals with Emotional Disturbances (3)	Junior
EDSP 193 - Processes in Human Communication (3)	Junior
EDSP 195 - Instructional Strategies for Individuals with Learning Handicaps (3)	Senior
EDSP 396A - Field Experience with Exceptional Children (3)	Sophomore

\*EDSP 190 is a prerequisite for this course.

## CREDENTIAL INFORMATION

Students who already possess a B.A. or B.S. degree from an accredited college or university have two options in pursuing the Multiple Subject or Single Subject credential:



- a. They may petition the University to evaluate their previous degree program for equivalency to the University of San Diego's own approved program; or
- b. They may take the Praxis II Series Examination: Professional Assessments for Beginning Teachers to demonstrate subject matter competency. Students obtaining the Multiple Subject credential would take the Content Knowledge and Content Area exercise one and two known as MSAT (Multiple Subject Assessment Test).

In addition to the above, students must complete successfully the units in the required professional preparation program for the preliminary credential.

**THE COMMISSION ON TEACHER CREDENTIALING AND THE LEGISLATURE OF THE STATE OF CALIFORNIA MAKE FREQUENT CHANGES IN THE REQUIREMENTS FOR TEACHING CREDENTIALS. THE UNIVERSITY WILL ATTEMPT TO INFORM CANDIDATES OF THESE CHANGES BUT CANNOT GUARANTEE THAT EVERY REQUIREMENT IS REFLECTED IN THIS BULLETIN.**

### PRELIMINARY CREDENTIAL

To obtain a preliminary credential, a student must:

1. Meet the academic and professional requirements described in this *Bulletin*;
2. Undergo a fingerprint check by the California State Department of Justice and the Federal Bureau of Investigation;
3. Pass the CBEST examination;
4. Complete a course or examination on the principles of the United States Constitution; and
5. Complete all credential application papers and pay the proper fees.

Information on credentials and placement services can be obtained in the School of Education's Credential and Placement Office.

### THE PROFESSIONAL CLEAR CREDENTIAL

At the end of the four year program as described, a student will qualify for a Preliminary Multiple Subject or Single Subject Credential, valid for five years. A student must complete an approved fifth year program of at least 30 post-baccalaureate units in an institution of higher education within the five year period. Completion of the fifth year program will provide a Professional Clear Multiple Subject or Single Subject Credential, renewable every five years. To qualify for a Clear Multiple or Single Subject credential, the applicant must have completed the following courses which cover material prescribed by the Commission on Teacher Credentialing:

1. Special Education/Mainstreaming - met by EDSP 190/290 with observation, or EDSP 190/290 and EDSP 396A;
2. Computer uses in the professions - met by EDUC 113/213; and
3. Health Education - met by EDUC 160, and a current CPR certificate.

Candidates holding a clear teaching credential must complete 150 clock hours of planned professional growth every five years in order to renew the clear credential.

Please see advisors for information on this requirement as well as any additional requirements passed subsequent to the publication of this *Bulletin*.

### FIVE-YEAR GRADUATE DEGREE/CREDENTIAL PROGRAMS

The School of Education offers several programs leading to the Master of Education degree with the Specialist Credential in Special Education including two five-year programs in which undergraduate students may enroll.

1. Master of Education in Special Education with Combined Multiple Subject Credential with Specialist Credential in Special Education — Advanced Specialization: Severely Handicapped.
2. Master of Education in Special Education with Combined Multiple Subject Credential with Specialist Credential in Special Education — Advanced Specialization: Learning Handicapped.

These programs are open to qualified undergraduate students who wish to obtain a Multiple Subject and a Specialist Credential in Special Education. The requirements are a selected combination of professional courses together with selected experiences in educational settings serving both general and special education students. The aim is to develop the competencies necessary to teach all students and to obtain a graduate degree.

### NON-DEGREE CREDENTIAL PROGRAM: SENIORS AND GRADUATE STUDENTS

Teacher candidates who have not completed the USD-approved program for the Multiple or Single Subject Credential must:

1. Make written application for admission to the Teacher Education Program, arrange for a personal interview and take the CBEST;
2. Either petition the University to evaluate their previous program for equivalency to the University's own approved program or take the appropriate Praxis II Series Examination: Professional Assessments for Beginning Teachers in lieu of the approved USD program. These examinations are given periodically throughout the State of California. A fee is charged by the Educational Testing Service for the examination and by the

Commission on Teacher Credentialing (CTC) when applying for the credential. Candidates may repeat the examination if necessary but must pay an additional fee each time the examination is taken. Students are required to pass the multiple-choice section of the exam and the Content Area Performance Assessment, a two hour written exam;

3. Complete the professional coursework and 12 units of student teaching under the supervision of the School of Education of the University of San Diego; and
4. Prior to student teaching, students must apply for a Certificate of Clearance from CTC. This certificate involves a computer check of fingerprints for possible disqualifying conditions. Students who have been convicted of any offense should discuss this with the director upon applying for the program.

### THE DIVERSIFIED LIBERAL ARTS MAJOR AND THE MULTIPLE SUBJECT CREDENTIAL PROGRAM

The program for the Diversified Liberal Arts major consists of a core of classes required of all students plus a concentration. Students should plan their program carefully with their preceptor and with a School of Education advisor to ensure that all coursework and fieldwork requirements are met in proper sequences.

**Note: This major is open only to those students intending to pursue a Multiple Subject Teaching Credential (elementary education).**

#### CORE COURSES

##### The Study of Language

English Lower Division (6 units) Required - English 21 Recommended - one of the following: English 25, 26, 27, or 28

English Upper Division (6 units) Required - English 175 and 190

Education (3 units) Required - Education 33 Foreign Language (0-9 units)

Students must demonstrate third semester competency by coursework or examination.

##### The Study of Mathematics

Mathematics (9 units) Required - Mathematics 11, 91 and 101

##### The Study of Science

Life Science (3 units) Recommended - one of the following: Biology 1, 2 or 4; Marine Science 21

Physical Science (3 units) Recommended - one of the following: Chemistry 1, 1E, or 2; Physics 1; Marine Science 20

Earth Science (3 units) Recommended - Environmental Studies 10 or 50; Physics 5 or 6; Marine Science 1



### The Study of History and the Social Sciences (select Option 1 or 2)

#### Option 1:

Political Science (3 units) Required - Political Science 15

History (3 units) Required - History 16

Psychology (3 units) Required - Psychology 1

Education (3 units) Required - Education 130

#### Option 2:

History (6 units) Required - History 16 and 17

Psychology (3 units) Required - Psychology 1

Education (3 units) Required - Education 130

GE Requirement (3 units) Recommended - Economics 1; Communication Studies 1 or 3; Political Science 1 or 20

### The Study of Humanities

Religious Studies (9 units)

Recommended - Religious Studies 10, 11, 14, 16, 19, 110, 120, 134, 141, 142, 143, 156, or 164 (The University's General Education requirement is one course per year up to 9 units, with three of those units at the upper division level.)

Philosophy (9 units)

Area A (Logic) Required: Philosophy 1

Area B (Ethics) Recommended one of the following: Philosophy 130, 131, 134, 135, 136, 138, or 141 (141 highly recommended)

Area C (Electives) (excluding logic and ethics) Recommended one of the following: Philosophy 10, 11, 12, 14, 181, or 183

### The Study of the Visual and Performing Arts

Theatre (3 units)

Required - Theatre 11

Art (3 units)

Recommended - Art 5 or 150

Music (3 units)

Recommended - Music 1 or 45

### The Study of Physical Education

Education (2 units) Required - Education 160

### The Study of Human Development

Education (2 units) Required - Education 131

### The Study of Technology (3 units)

Recommended - Education 113 or 158; Computer Science 50.

### Concentrations:

Concentrations must consist of subjects commonly taught in elementary schools or a closely related area of study. Each Concentration consists of a minimum of twelve units. **No course that is required of all candidates in the program may be included in any student's Concentration.** The University of San Diego offers Concentra-

tions in the following areas - Life Sciences, Marine Science, Computer Science, English (19th Century Literature), English (20th Century Literature), Spanish Studies/Bilingual Education, History, Global Society, Urban Society, Interdisciplinary Humanities, Multicultural, Visual and Performing Arts, and Human Development. Other concentrations may be arranged in consultation with the director of the Elementary Education Program. Students have the selected concentration approved by their School of Education advisor.

### Bilingual Emphasis:

There are some modifications to the Diversified Liberal Arts major for students in the Bilingual Emphasis (Spanish) credential program. These students must take the Spanish Studies/Bilingual Education Concentration. In the core courses students must demonstrate fourth semester competency in Spanish by coursework or examination, take History 183 in place of History 16, take six additional units in anthropology, and take Education 142 in place of Education 131. It is important for students to meet with the Bilingual Emphasis program advisor to make sure they are taking the appropriate courses.

## THE PROFESSIONAL PREPARATION PROGRAM FOR THE MULTIPLE SUBJECT CREDENTIAL

The Professional Preparation Program for the Multiple Subject Credential consists of:

- EDUC 127\* - Integrating the Social Sciences and Visual and Performing Arts in the Elementary Schools (3)
- EDUC 128\* - Curriculum and Instruction in the Elementary School: Mathematics and Science (3)
- EDUC 129\* - Communication, Culture and Collaboration (3)
- EDUC 134E\* - Methods of Teaching Reading and Language Arts in the Elementary Schools (3)
- EDUC 331 - Student Teaching (multiple subject) (12)

Total professional preparation 24 units.

## The Baccalaureate Degree and the Single Subject Credential Program

Candidates for this credential must meet the requirements of the specific Commission-approved program within their major department and include a course on the principles of the United States Constitution if not previously taken. Political Science 15 or History 17 at USD fulfills this requirement. Approved subject matter programs may be different from an academic major. The professional preparation sequence for the Single Subject Credential consists of:

- EDUC 130\*\* Philosophical & Cultural Foundations (3)
- EDUC 131\*\* Psychological Foundations (3)
- EDUC 132\*\* Curriculum & Methods of Teaching (3)
- EDUC 134\*\* Methods of Teaching Reading (3)
- EDUC 332 Student Teaching (Single Subject) (12)

Total professional preparation equals 24 units.

## LEADERSHIP MINOR

This minor offers undergraduate students in any major the opportunity to learn about and develop leadership in their personal and professional lives. Studies include an understanding of how organizations function, how change occurs in people's lives, in the organizations to which they belong, and in society in general; and the nature and purpose of leadership in transforming people, organizations and society. Leadership minor students learn how leaders use group dynamics and politics to achieve their purposes, and study the ethical dimensions of leadership. Students articulate their own philosophy of leadership that will guide them in future careers and throughout life.

Practical experience is included to provide students the opportunity to develop their leadership abilities. Students gain experience through leadership positions on campus or in community service. Students enrolled in this 18-unit minor must complete the following core in the School of Education:

- EDLD 60 - Leadership in Organizations (3)
- EDLD 150 - Leadership in Groups (3)
- EDLD 151 - Leadership Seminar (3)
- EDLD 187 - Leadership: Practical Experience (3)

Students also complete six units of electives which are:

- Approved by the leadership minor director;
- Relevant to the study of leadership; and
- Not used to satisfy major or other minor requirements.

This minor program is recommended for sophomores, but juniors may apply. Interested freshmen are encouraged to participate in the Emerging Leader Program.

## AMERICAN HUMANICS PROGRAM

This program offers undergraduates the opportunity to learn about leadership careers in human service.

Students majoring in business can complete the following 20-unit program and receive the American Humanics certificate:

- BUS 100 - Managing People in Organizations (3)
- BUS 101 - Organizational Theory and Management (3)

\*Candidates must take Education 130 and 131 prior to or concurrently with the coursework in professional education and prior to student teaching.

\*\* Post-baccalaureate students enroll in EDUC 230, 231, 232, 234.



BUS 198 - Internship (in a non-profit organization) (3)

EDLD 151 - Leadership Seminar (3)

EDLD 152 - Leadership in Human Service Organizations (3)

EDLD 188 - Leadership Experience I (3)

EDLD 156 - Seminar: Agency Leadership I (1)

EDLD 157 - Seminar: Agency Leadership II (1)

Students also attend the American Humanics Management Institute, a national conference, at least once during their undergraduate years.

Students majoring in the Arts and Sciences complete the following 20-unit program and receive the Leadership Minor and the American Humanics certificate.

EDLD 60 - Leadership in Organizations (3)

EDLD 150 - Leadership in Groups (3)

EDLD 151 - Leadership Seminar (3)

EDLD 152 - Leadership in Human Service Organizations (3)

EDLD 188 - Leadership Experience I (3)

EDLD 189 - Leadership Experience II (3)

EDLD 156 - Seminar: Agency Leadership I (1)

EDLD 157 - Seminar: Agency Leadership II (1)

Students also attend the American Humanics Management Institute, a national conference, at least once during their undergraduate years.

The School of Education and the USD Office of Volunteer Resources offer students the opportunity to combine experiential education with classroom learning. These community service courses, listed as EDLD 80/180 through 83/183 may be substituted for Leadership Experience with prior approval of the American Humanics director.

## SPECIAL COURSES

Each semester the School of Education offers special courses for undergraduates interested in developing or improving personal and learning skills. Among the courses listed are EDUC 15-Learning Development (2), EDUC 30-Stress Management (2), EDUC 31-Career Development (2), EDLD 60-Leadership in Organizations (3), and EDLD 156-157 Seminar in Agency Leadership (1). Students may also enroll in service-learning classes offered by the School of Education and USD Volunteer Resources. A student may apply no more than 12 units of special subjects towards graduation requirements.

## EDUCATIONAL RECREATION COURSES (ER)

The University also offers a variety of educational recreation courses to both men and women students. One-half unit of credit per semester is available to students for participating in recreation courses. In addition, students who participate in intercollegiate athletics may earn one unit of credit per semester. A total of four recreation units is applicable towards graduation requirements. Courses may be repeated for credit. No more than two recreation courses may be taken in a single semester.

## 1-4 Physical Recreation (one-half unit each semester)

Specific intramural sports, physical education classes and recreational activities are announced in the *Schedule of Classes* each semester. May be repeated. (Every semester)

## 5 Intercollegiate Competition in Baseball (1)

Participation in athletic competition. May be repeated. (Spring)

## 10 Intercollegiate Competition in Basketball (1)

Participation in athletic competition. May be repeated. (Fall or Spring)

## 15 Intercollegiate Competition in Golf (1)

Participation in athletic competition. May be repeated. (Spring)

## 20 Intercollegiate Competition in Tennis (1)

Participation in athletic competition. May be repeated. (Spring)

## 25 Intercollegiate Competition in Volleyball (1)

Participation in athletic competition. May be repeated. (Fall)

## 30 Intercollegiate Competition in Swimming (1)

Participation in athletic competition. May be repeated. (Spring)

## 35 Intercollegiate Competition in Football (1) (Fall)

## 40 Intercollegiate Competition in Crew (1)

Participation in athletic competition. May be repeated. (Spring)

## 45 Intercollegiate Competition in Softball (1)

Participation in athletic competition. May be repeated. (Spring)

**ONLY 12 UNITS OF SPECIAL COURSES AND RECREATION COURSES COMBINED ARE APPLICABLE TOWARD GRADUATION.**

## EDUCATION COURSES (EDUC)

### 15 Learning Development (2)

A structured group experience designed to help students increase their knowledge of learning theory and how this applies to the development of effective learning skills. Sessions will deal with time management, place of study, handling distractions, concentration, preparation for tests, test anxiety, and general study techniques. Cannot be repeated for credit.

### 30 Stress Management (2)

This course will help students, through group and individual instruction, achieve a more positive learning and living experience within the academic environment. Techniques include how

to handle stress, relaxation methods, problem solving, etc. Cannot be repeated for credit.

## 31 Career Life Planning (2)

This course is designed to help students explore and decide career choices. Techniques for estimating personal and social skills, for examining values and attitudes, and selling one's self to an employer will be provided. Cannot be repeated for credit.

## 33 Literature for Children & Adolescents (3)

This course will examine the historical trends in literature for children as well as introducing students to the range of current literature available. Criteria for selecting children's literature will be explored and a variety of strategies for response and analysis will be shared. Ways in which literature can support children's inquiry in other curricular areas will also be discussed.

## 113 Computer Use in the Professions (3)

An introductory course which demonstrates the use of computer technology in a variety of personal and professional applications. Topics include: selection, operation, and evaluation of computer hardware and software; curriculum planning for computer literacy; computer-assisted instruction; word processing; information-retrieval and networking; and careers in computing. Programming in BASIC, LOGO and authoring languages is presented. Projects are related to a student's career field. Course emphasis is on microcomputer applications. This course meets the CTC requirement for the Professional Clear Credential.

## 120 Theory and Practice in Early Childhood Education (3)

Analysis of current program models in early childhood education and the theoretical assumptions on which they rest. A comparative perspective on claims for "developmentally appropriate practice" is presented.

## 121 History and Philosophy of Early Childhood Education (3)

Inquiry into the major personalities, foundational conceptions, and social and political movements that have developed and shaped American early childhood education. The historical role and current status of early childhood education vis-a-vis other educational movements.

## 123 Language Development and Literacy Acquisition in Early Childhood (3)

Presentation of the acquisition and development of oral and written language in children from birth through age eight, focusing on the interaction of form, content and use. Emphasis on implications of psycho- and socio-linguistic knowledge for the development of early childhood education literacy activities.



### **124 Introduction to Early Childhood Education (3)**

This course will provide a general introduction to the key concepts involved in early childhood education for children aged 2-8 years. Topics will include the history of early childhood programs, components in a quality early childhood program, and discussion of current issues and trends shaping the field today.

### **125 Successful Parenting and Volunteerism: Skills Training in Child and Adolescent Development (3)**

This course will provide students with practical strategies useful in working with children and adolescents in the home, in educational settings, and in youth organizations. Students will learn skills for: enhancing development; improving family interactions; communicating effectively with young people; problem solving and decision-making with different age groups; changing inappropriate behavior; mentoring; and building self-esteem and reducing stress in children and adolescents. Prerequisite: Psychology 1 or equivalent.

### **127 Integrating the Social Sciences and Visual and Performing Arts in the Elementary Schools (3)**

This course is designed to examine effective teaching strategies for learning social sciences and the visual and performing arts. Candidates will review appropriate curriculum materials including the California Frameworks. An interdisciplinary approach will be used in curriculum and instruction. Research related to the learning of social sciences and visual and performing arts will be investigated. A ten-week practicum is required for four hours per week. Prerequisites: Prior or concurrent enrollment in Education 130 and 131, and formal admission to the credential program or consent of the director.

### **128 Curriculum and Instruction in the Elementary School: Mathematics and Science (3)**

This course is designated to examine effective teaching strategies for learning mathematics and science. Candidates will review appropriate curriculum materials including the California Frameworks. An interdisciplinary approach will be used in curriculum and instruction. Research related to mathematics and science will be investigated. A ten-week practicum is required for four hours per week. Prerequisites: Prior or concurrent enrollment in Education 130 and 131, and formal admission to the credential program or consent of the director.

### **129 Communication, Culture and Collaboration (3)**

The course is designed to provide information which will enable candidates to develop and implement effective strategies for enhancing communication and collaboration with students,

families, and professional colleagues. Cultural similarities and differences (for example, gender, ethnicity, disability) will be examined to support effective relationships within the context of ethical practice and legal mandates. Some general areas and topics include: communication; principles; applications; parent conferences; small group decision making; facilitation; consultation; cross-cultural. Diversity (Culture): ethnicity, race, gender, class, disability. Professionalism (Collaboration): ethics, legal mandates, current issues, law and teaching, school organization.

### **130 Philosophical and Cultural Foundations of Education (3)**

An overview of the historical, philosophical, and sociological foundations of education in the United States, with emphasis on current concerns and issues. Twelve one-hour observations in local schools are required.

### **131 Psychological Foundations of Education (3)**

The psycho-physical development of children through adolescence is studied, with emphasis on the developmental aspects of the psychology of learning. Includes observations of children and adolescents in school settings in 12 one-hour sessions. Part of the content includes: early experience and cognitive growth; personal growth; and value development; fundamentals of growth and development; learning backgrounds and theories.

### **132S Curriculum and Methods of Teaching in the Secondary Schools (3)**

A general curriculum and methods course emphasizing: teaching techniques; writing of objectives; lesson planning; evaluation; classroom management; and subject matter applications. A ten-week practicum is required for six hours per week. Grade level and site are appropriate to the student's credential program. Prerequisites: Prior or concurrent enrollment in Education 130 and 131, and formal admission to the credential program or consent of director.

### **134E Methods of Teaching Reading and Language Arts in the Elementary Schools (3)**

This course is designed to assist students in developing a personal theory of the reading process and a repertoire of strategies consistent with that theory. In the process students will explore relationships between reading, writing, and the language arts. The uses of children's literature to promote reading and ways to create environments which support literacy development are included. Appropriate California Frameworks will be reviewed. A ten-week practicum is required for five hours per week. Students are advised to take this course the semester before student teaching. This course meets the CTC reading requirement for all basic teaching credentials.

### **134S Methods of Teaching Reading in the Secondary Schools (3)**

Techniques in the teaching of reading, including phonics, are studied and applied to secondary classrooms. A ten-week practicum is required six hours per week. Grade level and site are appropriate to the student's credential and must involve the teaching of reading and/or other language arts and communication skills. Prerequisites: Prior or concurrent enrollment in Education 130 and 131, and formal admission to credential program or consent of director. This course meets the CTC reading requirement for all basic teaching credentials.

### **141 Psychological and Sociological Influences of Ethnicity and Culture in Education (3)**

A contemporary study of varied factors affecting the learner and the learning process of students from diverse cultural backgrounds. Development of background, procedures, and techniques for educators.

### **142 Psychology and Methods for Teachers of Children from Spanish-Speaking Backgrounds (3)**

Development of understandings and teaching strategies appropriate and effective for use with youngsters from Spanish-speaking backgrounds. Required for the Multiple Subject/Bilingual Emphasis Credential. Includes 12 one-hour observations in school settings. Partially taught in Spanish.

### **145 English as a Second Language (ESL) (3)**

This class is designed to provide background and methodology for classroom teachers (K-12) in ESL strategies. A field practicum assignment, field observations, and demonstrations in ESL teaching are part of the course. Attention is given to such areas as: special ESL lessons in various subject areas; language assessment instruments; evaluation systems in ESL; varying methods of teaching second languages; using ESL materials; adapting standard materials to fit needs of ESL students; and working with an ESL curriculum matrix. This course meets the requirement for the Bilingual Specialist Credential.

### **158 Introduction to Education Technology (3)**

An introductory course which includes putting educational technology into perspective: history; mass media; social forces; information age; legal and moral aspects; instructional systems design; etc. Classroom audiovisual hands-on equipment utilization and hardware, software, supply election and sources for: audio cassettes; overhead; opaque; filmstrip; slide; sound/slide; sound/filmstrip; multi-image; and 16 mm projectors; video playback; and closed circuit TV. Classroom computing—hands-on utilization of large group presentation using LCD display panels, desktop publishing, and interactive video production. Future trends: computers, interactive learning environments, telecommunications. Enrollment limited to 20.





### 160 Physical Education in the Elementary Schools (2)

This course provides an education foundation for teaching health and physical education in elementary schools. It integrates the six broad goals of physical education (activity, fitness & wellness, movement, social interactions, self-realization, individual excellence) with health education principles and practices.

### 178 Philosophy of Education (3)

A survey of selected writings by some of the foremost thinkers in the philosophy of education. A critical study of the principles of recent educational philosophies as applied to administration, supervision, curriculum and methodology, and an assessment of their social and educational significance. Prerequisite: Junior standing. Cross-listed as Philosophy 181.

## SPECIAL EDUCATION COURSES (EDSP)

### 186 Behavior Management Skills in Education (3)

Study of theory, ethics, research, and practices of applied behavior analysis with exceptional

students in educational and community settings. Specifically emphasizes skills development in positive behavior change and includes field assignment where students implement and evaluate a behavior management project. (Fall)

### 190 Exceptional Individuals (3)

Overview course which investigates the characteristics and service delivery needs of individuals with special needs from birth through adulthood. The legally mandated categorical exceptionalities and gifted individuals will be discussed in terms of the individual, family, education, and ancillary service delivery issues. The primary focus of this course is on how educational, behavioral, social, ecological, transitional and vocational needs of these students can be addressed in appropriate full-inclusion mainstreamed, special education service delivery classes and non-traditional school settings. This course fulfills the California requirements for special education competencies for the Clear Multiple Subject, Single Subject, or Administrative Services Credential. Five classroom observations are required. (Every semester)

### 192 Psychology of the Emotionally Disturbed (3)

An overview of the developmental factors and learning characteristics most commonly exhibited by emotionally disturbed and socially maladjusted and autistic students. Discussion will include an introduction to counseling, psychotherapy, classroom management, behavior charting techniques, and teaching strategies related to the affective, academic, vocational and transitioning needs of emotionally disturbed students in learning handicapped and severely handicapped class settings. Prerequisite: EDUC 131/231 or equivalent; or consent of the instructor. (Spring)

### 193 Processes in Human Communication (3)

A survey course of the normal and abnormal development of communication skills (hearing, speech and language). The normal stages of language development from birth through adulthood are presented to serve as a framework from which to discuss language and communication delays, disorders, differences and loss. English as a second language, differences, language handicapped, special education categories and development lags are highlighted in this course. Identification and planning of language skills which lead to adult literacy in the area of oral expressive language is the primary focus throughout the course. (Fall)

### 198 Counseling of the Handicapped and their Parents (3)

Principles and practices of developmental, transitional and vocational counseling for students with handicapping conditions and their parents with emphasis on counseling techniques useful to teachers. Course includes a building of an awareness of cultural differences and how such differences affect counseling the handicapped and their parents.

## LEADERSHIP COURSES (EDLD)

### 60 Leadership in Organizations (3)

This course balances the examination of theories and concepts in leadership and organizational behavior with the practical areas that relate directly to the problems experienced in organizations. Following an initial consideration of the philosophical, psychological and sociological aspects of leadership, specific skill areas will include motivating other people, time management, communication skills, assessment and goal setting, team building, and changing leadership styles.

### 150 Leadership in Groups (3)

This course introduces the student to learning theories of group process and then develops effective skills of leading and influencing groups. After some theoretical understanding of the way groups work and after sensitizing the students to the personal and emotional dynamics of group processes, the course will deal with power and influence relationships, negotiating agreement, problem solving and intervention strategies, and group development. The course concepts will be integrated with skill building exercises in simulated situations.



**151 Leadership Seminar (3)**

This capstone course will allow students to integrate what they have learned throughout the leadership sequence of courses. In seminar fashion, the students will research and discuss various issues facing leaders both now and in the future. Each student will develop a personal philosophy of leadership to which he or she is committed. Case analysis will give the students an opportunity to build policy-making and change-agent skills. Prerequisites: EDLD 60 or BUS 100 and EDLD 150.

**152 Leadership in Non-Profit Organizations (3)**

This course is designed to provide knowledge and understanding of the leadership and administration of non-profit organizations. Students will gain both theoretical and practical knowledge of concepts including management, marketing principles, board development and personnel practices.

**156 Seminar: Agency Leadership I (1)**

Students taking this course gain an appreciation for the role of leaders in human service organizations. Topics include volunteerism, agency administration, financial management, and ethics and values. In addition to class meetings, students will attend field trips and participate in service projects and retreats.

**157 Seminar: Agency Leadership II (1)**

This course is a continuation of EDLD 156.

**FIELD PLACEMENT COURSES****EDUC 331 Student Teaching for the Multiple Subject Credential (12)**

Supervised teaching assignments are in selected classrooms of participating school districts. Assignments are full-day for one semester. **The candidate must file a student teaching request form with the School of Education by October 15 for Spring semester and by March 15 for Summer or Fall placements.** Fieldwork fee: \$120. Prerequisites: Admission to the program, completion of required professional education coursework and consent of the director of elementary education.

**EDUC 332 Student Teaching for the Single Subject Credential (12)**

Supervised teaching assignments are in selected classrooms of participating school districts. Assignments are full-day for one school district semester. **The candidate must file a student teaching request form with the School of Education ideally by October 15 for Spring semester and ideally by March 15 for Summer or Fall placements.** Fieldwork fee: \$120. Prerequisites: Admission to the program, completion of Education 130, 131, 132, and 134 and consent of director of secondary education.

**EDUC 333 Assessment of Instructional Competencies (6)**

Designed for the full-time, non-credentialed teacher. Individual arrangements are made with the appropriate director of teacher education. Prerequisites: Admission to the program, completion of required professional education coursework, and approval of the appropriate director.

**EDUC 397 Field Experiences in Early Childhood Education (1-3)**

This practicum experience will provide students with directed observation and participation in a classroom at the USD Manchester Child Development Center, working with young children aged 2 1/2 to 5 years of age.

**EDUC 398 Field Experience in Education (1)**

Practical experience in a school setting under professional supervision. Students complete a minimum of 40 hours of work related to their field of study. For elective credit only. Does not apply to major or to an education minor.

**EDLD 81/181 Field Experience in Literacy (1)**

Students enrolled in this course will serve in the community as tutors for children and adults in need of literacy development. The classroom learning component will offer opportunities to study tutoring techniques, explore local and global literacy issues, and reflect on the field experience.

**EDLD 82/182 Mentoring Volunteers for Youth (1)**

This course offers students the opportunity to mentor a young person in the community. Students will meet bi-weekly to share impressions and concerns, and to study youth issues related to the mentoring experience.

**EDLD 83/183 Recreational Activities for Youth (1)**

This field experience course offers opportunities to organize activities and supervise youth programs at USD partnership schools. The classroom learning component will cover multicultural awareness, interpersonal skill development, esteem building and youth issues.

**EDLD 187 Leadership: Practical Experience (1-3)**

Students taking this internship develop leadership by serving in a position of influence in the Associated Students or other approved campus organization. Students devote at least 120 hours to a leadership experience under the joint supervision of the Leadership minor director and a USD faculty sponsor.

**EDLD 188 Leadership Experience in Human Service I (1-3)**

Students taking this internship develop their leadership by serving in a position of influence in a human service organization. This placement can be in a community agency or at USD. Students devote at least 120 hours to a leadership experience under the joint supervision of the American Humanics program director and an agency or USD faculty sponsor.

**EDLD 189 Leadership Experience in Human Service II (1-3)**

This course is a continuation of EDLD 188.

**EDLD 340 Field Experience in Volunteer Leadership to EDLD 80/180 (1)**

Students taking this internship develop leadership by directing a USD volunteer project. The course includes an initial retreat, and bi-weekly meetings covering volunteerism, team building, communication, citizenship, and grant development and management.

**EDSP 390 Student Teaching in Special Education (8)**

Supervised student teaching in settings serving exceptional children and youth. Minimum of one full semester of at least 350 clock hours. **The candidate must register with the School of Education ideally by October 15 for Spring and March 15 for Summer or Fall placement in student teaching.** Fieldwork fee: \$80. Prerequisites: Admission to the program and consent of credential advisor.

**EDSP 393 Externship in Special Education (6)**

Supervised student teaching in settings serving exceptional children and youth. Consent of program director.

**EDSP 396A Field Experiences with Exceptional Individuals - Generic (3)**

The field experience course is designed to provide students with variety of hands-on experiences with exceptional individuals. Students enrolled in the generic field course will have an opportunity to observe and interact (either in actual field placements or by means of additional field observations) with individuals who are severely handicapped, learning handicapped, socially or emotionally disturbed, and other classifications as deemed appropriate by the credential advisor and the course supervisor. Requires a minimum of 120 contact hours with individuals with special needs. Fee: \$30.00.



SCHOOL OF

# Nursing

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L. Colette Jones, Ph.D., R.N., F.A.A.N.,  
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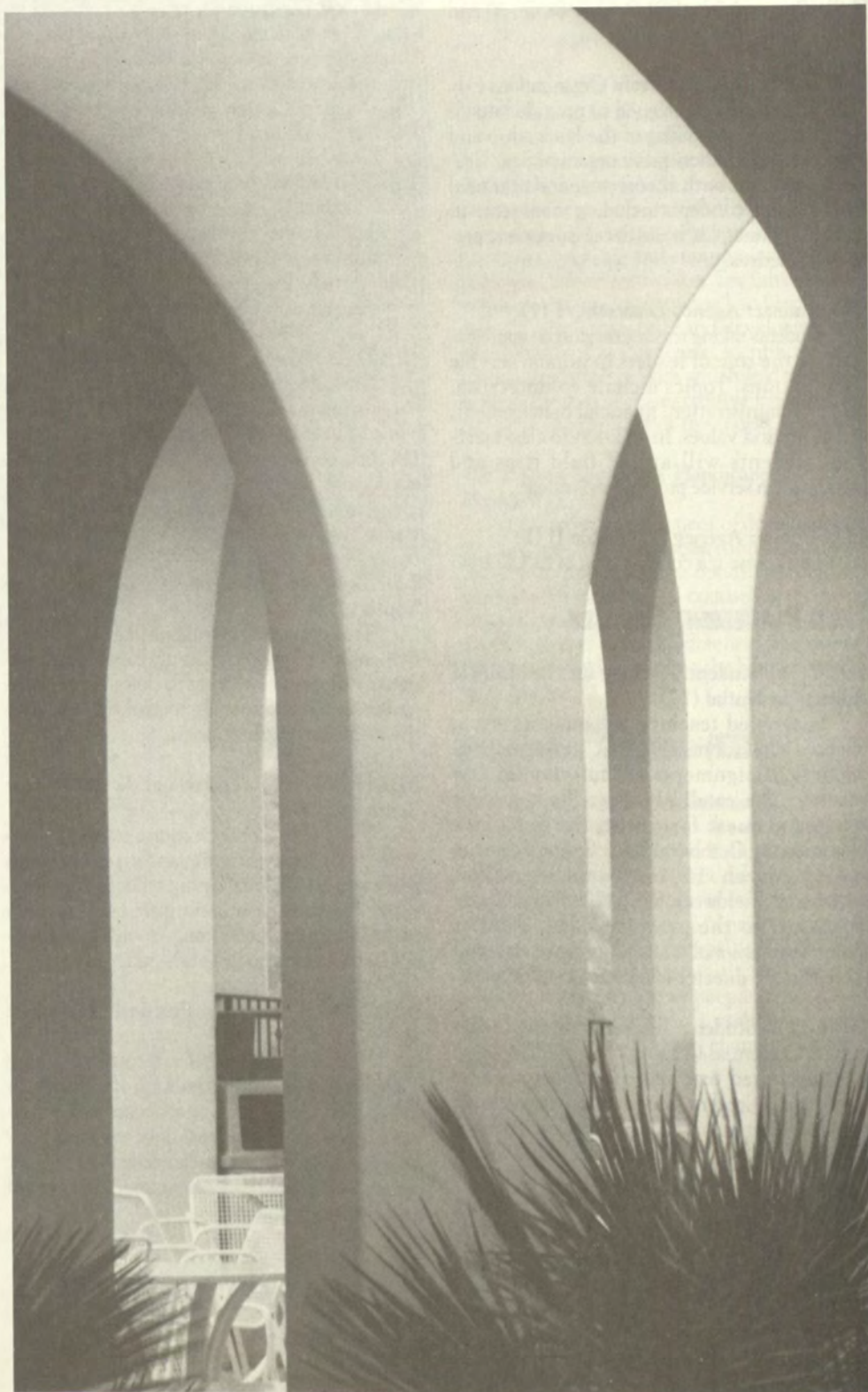
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Louise Rauckhorst, Ed.D., R.N.

Patricia Roth, Ed.D., R.N.

Rita Snyder-Halpern, Ph.D., R.N.





## THE PHILIP Y. HAHN SCHOOL OF NURSING OFFERS THE FOLLOWING PROGRAMS

B.S. in Nursing (for Registered Nurses only)  
Accredited by the National League for Nursing

Accelerated M.S. in Nursing which combines B.S.N. and M.S.N. program requirements (for Registered Nurses only)  
Both degrees are awarded

M.S. in Nursing (see *Graduate Bulletin*).  
Accredited by the National League for Nursing

M.B.A./M.S.N. Joint Degree Program with the School of Business Administration (see *Graduate Bulletin*)

Doctor of Nursing Science (see *Graduate Bulletin*)

All courses in the School of Nursing carry Board of Registered Nursing Continuing Education units for R.N. relicensure.

## THE BACHELOR OF SCIENCE IN NURSING PROGRAM

### Overview

The program of the Philip Y. Hahn School of Nursing is planned specifically for the Registered Nurse who desires to obtain a Bachelor of Science degree in Nursing. The School provides the upper division professional major for graduates of hospital diploma and associate degree programs who have met the specified prerequisite admission requirements. The program is designed to prepare the nurse to accept increased responsibility within the health care system and to assume leadership within the nursing profession.

A graduate of the program will be equipped for beginning practice, will have a foundation for graduate education in nursing and be eligible for certification as a public health nurse in the State of California.

### Characteristics of the Graduate

Upon completion of the program, the graduate will be prepared to:

- 1) Use a nursing conceptual model as a basis for nursing practice;
- 2) Apply theoretical and empirical knowledge derived from the physical and behavioral sciences and the humanities to the theory and practice of nursing;
- 3) Use the nursing process for meeting the diverse health care needs of individuals, families and communities;
- 4) Design nursing roles to meet the changing health needs of communities;
- 5) Collaborate with consumers and colleagues in the delivery of health care;
- 6) Use current research findings in promoting the health and welfare of people;

- 7) Assume responsibility and accountability for professional nursing practice; and
- 8) Demonstrate leadership ability in identifying and effecting needed change in specific health care delivery systems.

### Admission Requirements

1. Current licensure as a Registered Nurse in California;
2. Professional liability and malpractice insurance coverage, which must be maintained throughout enrollment;
3. Completion of the University application for admission, including payment of fees to Office of Admissions;
4. Three letters of reference from persons who know the applicant professionally;
5. Minimum of one year's experience or concurrent employment as a Registered Nurse in clinical nursing;
6. Evidence of specified immunizations;
7. Nursing Prerequisites: These courses can be met by transfer credit or challenge exam. Contact Office of Admissions for information.

A. Prior to admission to the first nursing course, the applicant is required to have completed with a grade of "C" or better, a semester course or the equivalent in the following subjects:

English Composition	3 units
Physiology	4 units*
Microbiology	4 units*
General or Organic Chemistry	4 units*
Elementary Statistics	3 units
Introduction to Sociology	3 units
Anthropology	3 units
Introduction to Psychology	3 units
Growth and Development	3 units

B. ACT-PEP Examinations in Nursing for applicants from Diploma programs.

Fundamentals of Nursing	6 units
Maternal and Child Nursing	6 units
Adult Nursing	12 units
Psychiatric Mental Health Nursing	6 units

\*Must have a laboratory component

8. Additional General Education requirements which may be completed prior to or taken concurrently with the upper division major are as follows:

Lower Division:	
Critical Reasoning (Logic)	3 units
History	3 units
Literature	3 units
Fine Arts (Art, Music, Theatre)	3 units
Elective	6 units
Upper Division:	
Religious Studies	6 units
Philosophy (Values requirement)	3 units

## RECOMMENDED PROGRAM OF STUDY

### BACHELOR OF SCIENCE IN NURSING Prerequisites completed prior to junior year

#### JUNIOR YEAR

Fall	Units
*NURS 133 Conceptual Basis of Professional Nursing Practice	(3)
*NURS 134 Communication Theory and Process	(5)
**GE Requirement	(3)
**GE Requirement	(3)
Total	14
Spring	Units
NURS 140 Health Assessment	(6)
NURS 163 Transcultural Health Care	(3)
**GE Requirement	(3)
**GE Requirement	(3)
Total	15

#### SENIOR YEAR

Fall	Units
NURS 145 Care of the Family	(6)
NURS 146 Utilization of Research in Practice	(3)
**GE Requirement	(3)
**GE Requirement	(3)
Total	15
Spring	Units
NURS 147 Care of the Community	(5)
NURS 148 Leadership Development	(3)
NURS 150 Contemporary Nursing Issues	(3)
**GE Requirement	(3)
Total	14

\* Prerequisite to all other upper division Nursing courses.

\*\*May be completed prior to enrollment in the upper division Nursing major.





### Academic Policies

1. Student must fulfill general education, nursing prerequisites, and professional major requirements.
2. All courses in the Nursing major must be completed within a 5-year period after beginning study in the Nursing major, that is, taking the first nursing course.
3. A grade of "C" or better is required in all courses in the Nursing major.
4. Students receiving a final grade of "D" or "F" in a course in the Nursing major must repeat the course, and receive a grade of "C" or better. **Students may repeat a course only once.**
5. While enrolled in courses in the professional major, the student is required to carry individual professional liability insurance, and current California R.N. licensure.
6. The student has the obligation of maintaining communication with an appointed academic advisor for program planning to meet graduation requirements.
7. The faculty reserves the right to alter the professional curriculum in accord with professional standards and trends.

8. Students must pass both clinical and theory components of a course to pass the course.

## ACCELERATED MASTER OF SCIENCE IN NURSING

### Overview

The accelerated RN/MSN program is designed for associate degree and diploma-prepared nurses who want to pursue the M.S.N. degree. The master's program offers four tracks: Family Clinical Nurse Specialist, Family Health Nurse Practitioner, School Health Nurse Practitioner, and Nursing Administration. All tracks share a common core of knowledge and each track is designed to prepare a specialist in the respective area. The purpose of the master's program is to provide leadership preparation that will enable the graduate to assume a significant role in nursing and health care delivery.

### Characteristics of the Graduate

Upon completion of the accelerated program, the M.S.N. graduate is prepared to:

1. Expand and test existing nursing theory as a basis for clinical practice;
2. Synthesize knowledge derived from the

sciences and humanities for specialized areas of nursing practice;

3. Implement innovative health care for individuals, families and communities;
4. Develop the specialist role in a selected area of nursing;
5. Collaborate with individuals and groups in promoting or extending health care services;
6. Utilize research methods and implement findings to promote the health and welfare of people;
7. Develop therapeutic regimens which further maximize wellness of individuals and families; and
8. Exhibit leadership in effecting needed change in health care delivery systems.

### Admission Requirements

1. Current licensure as an R.N. in California;
2. Professional liability and malpractice insurance coverage which must be maintained throughout enrollment;
3. Completion of the University application for admission, including payment of fees to Office of Graduate Admissions;
4. Three letters of reference from persons who know the applicant professionally;
5. One year of professional nursing practice;
6. Evidence of specified immunizations;
7. A GPA of at least 3.0 on a 4.0 scale;
8. A three unit course in statistics; and
9. Satisfactory scores on the Miller Analogies Test or the Graduate Record Examination General Test.

### Academic Policies

1. The B.S.N. is awarded upon successful completion of a minimum of 124 semester units of study, which must include the General Education requirements, prerequisites to the nursing major, upper division nursing requirements specific for the chosen Master's track, and certain of the M.S.N. courses. The final 30 units of B.S.N. coursework must be completed at USD.
2. The M.S.N. is awarded upon completion of all requirements for the chosen Master's track, which are outlined in the *Graduate Bulletin*.
3. The student is responsible for maintaining communication with an appointed advisor for program planning to meet graduation requirements for both programs.
4. The student in the accelerated program is responsible for adhering to deadlines and requirements specified in both the *Undergraduate Bulletin* and the *Graduate Bulletin*.
5. Graduate students are expected to maintain a cumulative GPA of 3.0 on a 4.0 scale. Students whose semester or cumulative GPA falls below 3.0 will be placed on academic probation.



## COURSE DESCRIPTIONS (NURS)

### 133 Conceptual Basis of Professional Nursing Practice (3)

Focus on utilization of the nursing process as a cognitive framework for assessment of behaviors of holistic man. Emphasis on the transition to professional nursing. (Fall)

### 134 Communication Theory and Process (5)

Focus on communication as a process essential to nurse-client relationships and professional practice. Three hours of lecture, one hour of seminar, three hours of laboratory. (Fall)

### 140 Health Assessment (6)

Development of skills in holistic client assessment and physical examination in preparation for professional care of individuals throughout the life span. Application of these skills within the framework of the nursing process to meet the individual's needs for health maintenance and promotion. Three hours of lecture, 1.5 hours of seminar, 4.5 hours of laboratory. Prerequisites: Nursing 133, 134. (Spring)

### 145 Care of the Family (6)

Focus on the family within the community and the health care system. Frameworks utilized to assess families include the developmental, systems, structural-functional and interactional. Interventions with families will emphasize the promotion and maintenance of health. Students have clinical opportunities in official public health agencies to integrate selected theories and concepts using the nursing process as they interact with clients and families in the milieu of their homes and community settings. Two hours of lecture, one hour of seminar, nine hours of laboratory. Prerequisite: Nursing 140. (Fall)

### 146 Utilization of Research in Practice (3)

Introductory course in research. Focus on utilization of research in practice through informed critique of research reports and findings. Prerequisites: Nursing 133, 134. (Fall)

### 147 Care of the Community (5)

Focus on the community, its health and well being, and the public health sciences. Federal, state, and local legislation influencing the health of communities is explored, as is the use of the nursing process with the community as client. Selected public health problems are addressed. Two hours of lecture, 1.5 hours of seminar, 4.5 hours of laboratory. Prerequisite: Nursing 145. (Spring)

### 148 Leadership Development (3)

Introduction to concepts and theories applicable to nursing leadership roles. Emphasis on application to nursing practice. Prerequisites: Nursing 133, 134. (Spring)

### 150 Contemporary Nursing Issues (3)

Focus on critical trends and issues in American nursing today. Prerequisites: Nursing 133, 134. (Spring)

### 163 Transcultural Health Care (3)

Cultural values and belief systems which influence the health behaviors of ethnic minorities are explored. The social, political, and economic forces influencing minorities' access to and use of health care resources are addressed. Prerequisites: Nursing 133, 134 (Fall)

## HEALTH SCIENCE COURSES (HS)

### 105 Health Care and Women (3)

This course is designed to promote health awareness and well-being for women. An exami-

nation of the health care available to women and an exploration of health issues that commonly affect women across the life span is included.

### 160 Health Education (2)

This course addresses the nature and scope of health education, including current problems in individual, family and community health. Theories and methods of health education are discussed. This course fulfills the health education requirement of the State of California for Multiple Subject and Single Subject teaching credentials. Cross-listed as Education 160. (Spring)





# Naval Science

Captain John S. Boyd, USN, M.S., Chair  
Commander Kenneth J. Marra, USN,  
M.S., M.B.A.

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Captain Michael A. Korman, USMC, M.S.

Lieutenant David A. Lawrence, USN, B.S.

Lieutenant Mary Theo Lewis, USN, B.S.

Lieutenant Morgan H. Smith, USN, B.A.





## NAVAL SCIENCE

The purpose of the Naval Science program is to provide college students desiring to become Naval or Marine Corps officers a basic professional background in the areas of leadership and management; piloting and celestial navigation; nautical rules of the road; ship characteristics, design and propulsion; theory and employment of weapon systems; and development of warfare and amphibious operations. This curriculum is open to all University students. A graduate will be able to assume, through development of mind and character, the highest responsibilities of command, citizenship and government.

### Program Objectives

The primary objectives of the Naval Science Department curriculum are to provide:

- 1) an understanding of the fundamental concepts and principles of naval science;
- 2) a basic understanding of associated professional knowledge;
- 3) an appreciation of the requirements for national security;
- 4) a strong sense of personal integrity, honor and individual responsibility; and
- 5) an educational background which will allow Naval Science students to undertake successfully, in later periods in their careers, advanced/continuing education in a field of application and interest to the Navy or Marine Corps.

## COURSE DESCRIPTIONS

### 11 Introduction to Naval Science (0)

A general introduction to the naval profession and to concepts of sea-power. Instruction emphasizes the mission, organization, and warfare components of the Navy and Marine Corps. Included is an overview of officer and enlisted ranks, training and education, and career patterns. The course also covers Naval courtesy and customs, military justice, leadership, and nomenclature. This course exposes the student to the professional competencies required to become a naval officer. **Note: This is a non-credit course.**

### 12 Naval Ships Systems I (Engineering) (3)

A detailed study of ship characteristics and types including: ship design; hydrodynamic forces; stability; compartmentation; propulsion; electrical and auxiliary systems; interior communications; ship control; and damage control. Included are basic concepts of the theory and design of steam, gas turbine, and nuclear propulsion. Also discussed are shipboard safety and firefighting.

### 21 Naval Ships Systems II (Weapons) (3)

This course outlines the theory and employment of weapons systems. The student explores the processes of: detection; evaluation; threat analysis; weapon selection; delivery; guidance; and explosives. Fire control systems and major weapons types are discussed, including capabilities and limitations. The physical aspects of radar and underwater sound are described in detail. The facets of command, control, and communications are explored as a means of weapons system integration.

### 22 Seapower and Maritime Affairs (3)

A survey of United States Naval history from the American Revolution to the present with emphasis on major developments. Included is an in-depth discussion of the geopolitical theory of Mahan. The course also treats present-day concerns in seapower and maritime affairs including the economic and political issues of merchant marine commerce, the law of the sea, and a comparison of United States and other foreign naval strategies.

### 131 Navigation and Naval Operations I (3)

An in-depth study of piloting and celestial navigation including theory, principles, and procedures. Students learn piloting navigation including the use of charts, visual and electronic aids, and the theory and operation of magnetic and gyro compasses. Celestial navigation is covered in depth including the celestial coordinate system, and introduction to spherical trigonometry, the theory and operation of the sextant, and a step-by-step treatment of the sight reduction process. Students develop practical skills in both piloting and celestial navigation. Other topics discussed include: tides; currents; effects of wind and weather; plotting; use of navigation instruments; types and characteristics of electronic navigation systems.

### 132 Navigation and Naval Operations II (3)

A study of the international and inland rules of the nautical road; relative-motion vector-analysis theory; relative motion problems; formation tactics; and ship employment. Also included is: an introduction to naval operations and operations analysis; ship behavior and characteristics in maneuvering; applied aspects of ship handling; and afloat communications.

### 133 Evolution of Strategic Operations (3)

This course traces the development of warfare from the dawn of recorded history to the present, focusing on the impact of major military theorists, strategists, tacticians, and technological developments. The student acquires a basic sense of strategy, develops an understanding of military alternatives, and sees the impact of historical precedent on military thought and actions.

### 141 Leadership and Management I (3)

A comprehensive advanced-level study of organizational behavior and management in the context of the naval organization. Topics include a survey of the management functions of planning, organizing, and controlling, an introduction to individual and group behavior in organizations, and extensive study of motivation and leadership. Major behavioral theories are explored in detail. Practical applications are explored by the use of experiential exercises, case studies, and laboratory discussions. Other topics developed include decision-making, communication, responsibility, authority, and accountability.

### 142 Leadership and Management II (3)

The study of naval junior officer responsibilities in naval administration. The course exposes the student to a study of: counseling methods; military justice administration; naval human resources management; directives and correspondence; naval personnel administration; material management and maintenance; and supply systems. This capstone course in the NROTC curriculum builds on and integrates the professional competencies developed in prior coursework and professional training.

### 143 Amphibious Operations (3)

An historical survey of the development of amphibious doctrine and the conduct of amphibious operations. Emphasis is placed on the evolution of amphibious warfare in the 20th century, especially during World War II. Present-day potential and limitations on amphibious operations, including the rapid Marine air-ground task force concept, are explored.



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## In Memoriam

— Ernest W. Hahn —

September 12, 1919 – December 28, 1992





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- Elizabeth Jacobs .... Recruitment Coordinator
- Barbara Burke, M.Ed. .... Counselor
- Anita Buckley Rogers, M.Ed. .... Counselor
- Rebecca Jaurique, M.Ed. .... Counselor

## UNIVERSITY MINISTRY

- Rev. Msgr. I. Brent Eagen, M.A., L.H.D. .... Vice President for Mission and  
Ministry
- Rev. Paul Donovan, S.J., Ph.D. .... Associate Chaplain
- Rev. Barry Vinyard, B.A. .... Associate Chaplain
- Sister Alicia Sarre, RSCJ, Ph.D. .... Sacristan
- Sister Irene Cullen, RSCJ, M.R.E., M.Div., S.T.M. Law/Graduate Minister
- Mary Rita Hassett, M.Div. .... Liturgical Minister
- MaryEllen Pitard, B.A., M.S. .... Apostolic and Social Justice Minister
- Annette Welsh, B.A. .... Music Minister
- Amy Gualtieri. .... Wedding Coordinator
- Traci Merrill. .... Administrative Assistant

## UNDERGRADUATE ADMISSIONS

- Warren Muller, M.A.L.S. .... Director of Undergraduate Admissions
- Kit Phelps, M.Ed. .... Assistant Director of Undergraduate Admissions
- Elaine Winfrey, M.S. .... Systems Manager
- Valencia Hamman, B.A. .... Senior Admissions Officer
- Kelly Farland, B.A. .... Admissions Representative
- Jorge Huinquez, M.Ed. .... Admissions Representative
- Vincent Pandes, B.B.A. .... Admissions Representative
- Erika Lynn Quiggins, B.A. .... Admissions Officer
- Joanne Leslie, M.Ed. .... Evaluation Specialist
- Anne Barker, B.S. .... Admissions Assistant

## GRADUATE ADMISSIONS

- To be appointed .... Director of Graduate Admissions
- Jan Littrell, M.S. .... Admissions Officer

## REGISTRAR

- Nicholas M. DeTuri, M.Ed. .... Registrar
- Susan H. Carrico, M.A. .... Assistant Registrar
- Dorothy Haddow, B.S. .... Registration Manager
- Andrew Westfall, B.A. .... Registration Assistant
- Reuel Shivers, B.A. .... Transcript Assistant
- Lisa Zullo, B.A. .... Verification Assistant
- Kay Norton. .... Records Assistant
- Mary Robbins .... Veteran's Affairs Assistant

## FINANCIAL AID

- Judith Lewis Logue, M.S. .... Director of Financial Aid
- Sister Dale Brown, M.S. .... Associate Director of Financial Aid
- William Bailey, B.A. .... Student Employment Coordinator
- Ruth Bygness, M.A. .... Counselor
- Carol Lawrence, M.A. .... Counselor
- Anne-Grethe Morris, M.A. .... Counselor
- Beverly Peterka, M.B.A. .... Counselor
- Donald Bambacht, B.A. .... Financial Aid Assistant
- Carolyn Costanzo .... Financial Aid Assistant
- Vincent Fernando, B.A. .... Financial Aid Assistant



Cathy Hemry, B.B.A.	Financial Aid Assistant
Carrol Holmes	Financial Aid Assistant
Georgia Belaire	Data Processing Assistant
Maria Nelson	Data Processing Assistant
Betsy Weiss, B.A.	Data Processing Assistant

## GRANTS AND CONTRACTS

Cynthia C. Weiler, M.B.A.	Director
Jackie White	Program Coordinator
Kathy Hughes, B.S.	Administrative Secretary

## COPLEY LIBRARY

Edward D. Starkey, M.A., M.S.L.S.	University Librarian
Marjo A. Gray, M.S.L.S.	Associate University Librarian
Margit Smith, M.A., M.L.S.	Head of Cataloging
Tony Harvell, M.A., M.L.S.	Head of Reference
Marilyn Ramsey, M.A.	Head of Acquisitions
Madeline Wiedower, B.A.	Head of Circulation
William Hall, B.A.	Head of Interlibrary Loan
Janet H. Murphy, M.S.L.S.	Reference/Business
Markel Tumlin, M.A., M.S.L.S.	Head of Periodicals
Steven Staninger, M.A., M.L.S.	Reference/Government Documents
Gyongyver Barna, B.A.	Library Assistant (Cataloging)
Julieta Pastor	Library Assistant (Cataloging)
Elizabeth Rumery, B.S.	Library Assistant (Cataloging)
Terry Mignona	Library Assistant (Acquisitions)
Brae Canlen, B.A.	Library Assistant (Reserves)
Mimi Labrucherie, B.A.	Library Assistant (Binding)
Adriana Moran, B.A.	Library Assistant (Periodicals)
Andrea Letzring	Library Assistant (Overdues)
Sonia Cawsey, M.L.I.S.	Reference/Science
Tamara Shaw, B.A.	Library Assistant (Periodicals)
Darryl Collins	Library Assistant (Circulation)
Tom McKissick, B.S.	Library Assistant, Circulation
Rebecca Gilbert, B.A.	Library Assistant (Administration)

## MEDIA CENTER

David Tiedemann, Ed.D.	Director
Carl Boals, B.A.	Media Technician Supervisor
Tessie Camina, B.S.	Media Technician
Mike Wasinski, B.A.	Media Technician
John Frazer, A.S.	Media Technician (Repairs)
Marguerite Peoples, A.S.	Media Assistant (Software)
Douglas Stalb, B.A.	Media Assistant (Circulation)
Kevin Galbraith	Media Assistant (Circulation)

## ACADEMIC COMPUTING

Jack W. Pope, Ph.D.	Director of Academic Computing
John W. Paul III, B.S.	Assistant Director
Patricia W. Anderson, Ph.D.	Consultant, User Services
Richard Moy, B.A.	Consultant, User Services
Allen W. Tsai, M.S.	Operation Systems Specialist
Steven R. Spear, B.A.	Systems Specialist
Barbara J. Ritchie, M.L.S.	Library Systems Manager
Hannah M. Kinney, B.A.	Work Study Coordinator
R. Paul Gordon, B.A.	Computer Lab Supervisor
Jerry Stratton, B.A.	Computer Operator
Leo Baker	Network Assistant
Ruben S. Valdez	Microcomputer Repair Technician
Richard Welch	Computer Lab Supervisor

## HOUSING, DINING SERVICES, AND STUDENT ACTIVITIES

Rick Hagan, M.B.A.	Director of Housing
Rudy Spano, B.A.	Director of Dining Services
Stanley M. Walsh, M.R.E., M.S.G.	Director of Residence Life
Yvette Fontaine, M.Ed.	Director, International Resources
Carol Lyman, M.A.	Director of Student Activities
Kim Padulo, M.S.Ed.	Associate Director of Student Activities
Donna Reed, M.Ed.	Assistant Director of Student Activities
Greg Zackowski, M.B.A.	Director of Special Events & Operations
Darren Cecil, M.A.	Director of Alcohol & Drug Education
Peter Ryan, B.A.	Director of Outdoor Recreation and Leisure Programs
Karen Reed, B.A.	Special Projects Coordinator
Kathy Bruzzese, B.A.	Resident Director
John Giammalva, M.Ed.	Resident Director
Larry Perez, B.A.	Resident Director
Julie Thurman, M.A.T.	Resident Director
Mark Trafton, B.B.A.	Resident Director
Brenden Griffin, B.S.	Assistant Resident Director
Sister Helen Lorch, R.S.C.J., M.A.	Resident Counselor

## ATHLETICS, INTRAMURALS, AND RECREATION

Thomas Iannacone, M.S.	Director of Athletics
Dan Yourg, M.A.	Assistant Director of Athletics
Regina Sullivan, M.S.	Assistant Director of Athletics
Ky L. Snyder, B.S.	Director of Development, Athletics
John Martin, M.A.	Director of Recreation and Facilities
Gary Becker, B.A.	Director of Intramurals
Bill Morgan, B.A.	Women's Swimming
Ted Gosen, M.S.	Sports Information Director
Mary Johnson, M.S.	Summer Camps Director
Brian Fogarty, B.A.	Football
John Cunningham, B.A.	Baseball
Hank Egan, M.S.	Men's Basketball
Kathleen Marpe, M.A.	Women's Basketball
Edward Collins, M.A.	Men's Tennis
Sherri Stephens, M.S.	Women's Tennis
Seamus McFadden, B.A.	Men's Soccer
Tony Daluz, B.A.	Women's Soccer
Brooks Dagman, B.A.	Mens Crew
LeeAnn Craine, B.A.	Women's Crew
Frank Cates, B.A.	Men's Golf
Richard Cota, B.A.	Cross Country
Lin Adams, Ph.D.	Women's Softball
Sue Snyder, M.S.	Women's Volleyball
Carolyn Greer, M.A., A.T.C.	Athletic Trainer
Wayne Jacobs, A.A.	Strength Coach

## UNIVERSITY RELATIONS

Jack F. Cannon, B.A.	Director of Public Relations
Jack Adams, Ph.D.	Director of Special Projects
Amy L. Archer B.Mus.	Director of Annual Funds
Cary Blanchette, B.A.	Director of Planned Giving
Donald M. Fellows, B.A.	Director of Development
Kate Callen, M.F.A.	Director of the News Bureau
Rosetta S. Ellis, B.A.	Director of Parent Relations
Kevin Gordon, M.B.A.	Director of Advancement Services
Esther M. La Porta, B.A.	Director of Corporate Relations
Maria Martinez-Cosio, B.A.	Assistant Director of Public Relations/ Director of Community Programs
Katherine Nakamura, J.D.	Director of Prospect Research
Kathleen A. Quinn, B.B.A.	Director of Law School Development
Elizabeth Stroube Schiff, B.A.	Director of Capital Programs



John A. Trifiletti, B.A. ....Director of Alumni Relations  
 Trisha J. Ratledge, B.J. ....Associate Director of Publications

## ACCREDITED MUSIC TEACHERS

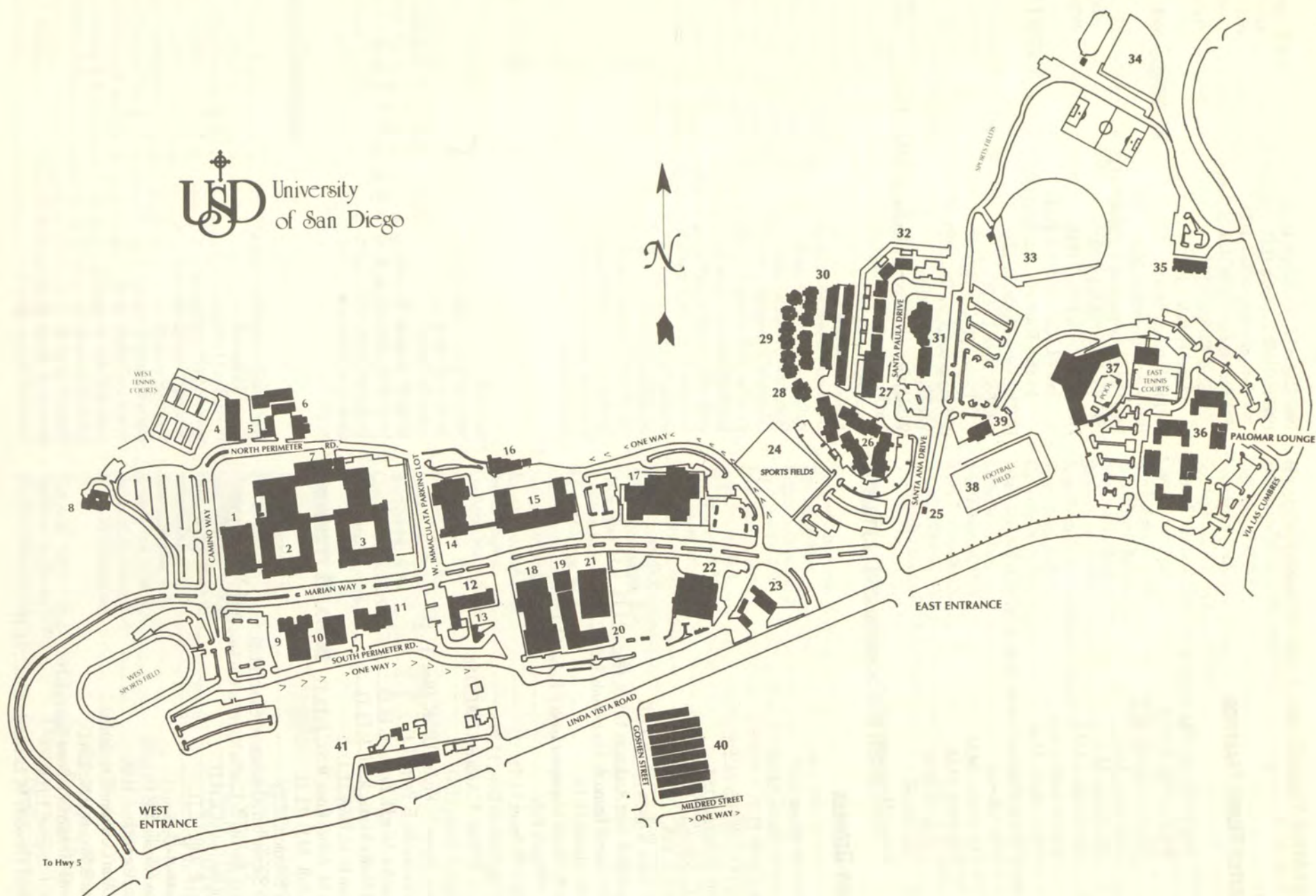
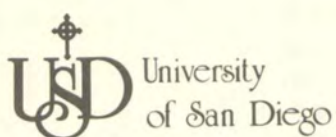
Piano: Irina Bendetsky, D.M.A. (CIS)  
 Kay Etheridge, D.M.A.  
 Ronald Morebello, M.S.  
 Linda Scott, M.M.  
 Voice: John Lasher, M.A.  
 Ellen Johnson, M.M.  
 Virginia Sublett, M.A.  
 Strings: Navroj Mehta, M.M.  
 Woodwinds: Tamarah Ashton-Coombs, M.A., M.S.  
 John Rekevics  
 Brass: Dirk Koman, M.M.  
 Guitar: Eric Foster, M.M.  
 John Lyon, M.M.  
 Percussion: Fred Divisek  
 Organ: Robert Thompson, D.M.A.

1981 Casper W. Weinberger, LL.D.  
 1982 Helen K. Copley, L.H.D.  
 Bernardo Sepulveda, L.H.D.  
 1983 Frances Danz, R.S.C.J., L.H.D. R.  
 Craig Noel, L.H.D.  
 Terrel H. Bell, L.H.D.  
 1984 Pete Wilson, LL.D.  
 1985 Anita Figueredo, L.H.D.  
 1986 Most Reverend Leo T. Maher, L.H.D.  
 1987 Ernest W. Hahn, L.H.D.  
 1988 Joan Beverly Kroc, L.H.D.  
 Jaime L. Cardinal Sin, L.H.D.  
 Mother Teresa of Calcutta, L.H.D.  
 1989 Herbert G. Klein, L.H.D.  
 1990 Bob Hope, L.H.D.  
 Dolores Hope, L.H.D.  
 1991 Hodding Carter, III, L.H.D.  
 1992 Elliot L. Richardson  
 1993 Lt. General Robert B. Johnston, U.S.M.C., L.H.D.

## HONORARY DEGREES

1959 Richard M. Nixon, LL.D.  
 1961 Edmund G. Brown, LL.D.  
 John J. Irwin, LL.D.  
 1962 Murray D. Goodrich, LL.D.  
 1963 Edward R. Annis, D.Sc.  
 Earl C. Bolton, LL.D.  
 1964 Herbert F. York, LL.D.  
 1965 Sister Mary William I.H.M., LL.D.  
 Captain E. Robert Anderson, U.S.N. (Ret.), LL.D.  
 Major General Bruno A. Hochsmuth, USMC, LL.D.  
 1966 John S. Alessio, LL.D.  
 Right Reverend Monsignor Louis J. Risha, LL.D.  
 1967 John V. Naish, D.Sc.  
 Graydon Hoffman, LL.D.  
 1968 Malcolm Andrews Love, LL.D.  
 1969 Lt. Col. William A. Anders, USAF, D.Sc.  
 1970 Maurice H. Stans, LL.D.  
 Lt. Gen. Victor H. Krulak, USMC (Ret.) LL.D.  
 1971 Monsignor John E. Baer, LL.D.  
 Monsignor Alfred F. Horrigan, LL.D.  
 Sister Nancy Morris, R.S.C.J., LL.D.  
 1972 William D. McElroy, LL.D.  
 Sister M. Aimee Rossi, R.S.C.J., LL.D.  
 1974 Jonas Salk, M.D., LL.D.  
 Irving Salomon, LL.D.  
 1975 Prince Sattam bin Abdulaziz Al-Saud, LL.D.  
 Florence Bienta de Casilla Martinez Cardona (Vikki Carr), LL.D.  
 1976 Arthur Buchwald, L.H.D.  
 1977 George F. Will, LL.D.  
 1978 Leo Roon, L.H.D.  
 Franco Zefirelli, L.H.D.  
 1979 Robert Abernethy, L.H.D.  
 Mary Ann Garrigan, R.N., L.H.D.  
 Martha E. Rogers, R.N., L.H.D.  
 1980 Reverend Monsignor I. Brent Eagen, L.H.D.  
 Ray A. Billington, L.H.D.  
 Reverend Theodore M. Hesburgh, C.S.C., LL.D.





## Map Legend

### 1 Helen K. and James S Copley Library

#### 2 Camino Hall

- a. Women's Residence
- b. Shiley Theater
- c. Health Center
- d. Chemistry
- e. Classrooms/Science Labs

#### 3 Founders Hall

- a. Women's Residence
- b. Founders Chapel
- c. Founders Gallery
- d. French Parlor
- e. American Parlor
- f. College of Arts & Sciences
- g. Graduate School Office
- h. Registrar
- i. Summer/Intersession Office
- j. Classrooms

#### 4 Physical Plant/Facilities

#### 5 Environmental Studies

#### 6 General Services

#### 7 Sacred Heart Hall

- a. ROTC
- b. Performing Arts Center
- c. Student Art Exhibit Gallery

#### 8 Casa de Alcalá

#### 9 Olin Hall

- a. School of Business Administration
- b. Classrooms/Computer Lab

#### 10 Manchester Executive Conference Center

- a. School of Continuing Education
- b. Meeting Rooms

#### 11 Philip Y. Hahn School of Nursing

### 12 Author and Marjorie Hughes Center

- a. President's Office
- b. University Relations
- c. Public Relations
- d. Student Accounts
- e. Cashiers
- f. Accounts Payable
- g. Payroll
- h. Career Services
- i. Finance and Administration
- j. Controller
- k. Financial Aid
- l. Loan Administration

#### 13 Public Safety / Parking Services

#### 14 Immaculata Church

#### 15 Maher Hall

- a. Men's Residence
- b. Catering Office
- c. Human Resources Office
- d. Provost Office
- e. Salomon Lecture Hall
- f. Media Center
- g. Classrooms

#### 16 Print Shop/Telecommunications

#### 17 Hahn University Center

- a. Operations and Special Events Office
- b. Office of Student Affairs
- c. Residence Life and Dining Services Office
- d. Campus Ministry Office
- e. Associated Students
- f. Volunteer Resources
- g. Main Dining Hall - Faculty/Staff Dining Room

#### h. The Marketplace

#### i. The Courtyard Grille

#### j. Meeting Rooms

#### k. Outdoor Adventures

#### l. Game Room

#### m. Music Listening Room

#### n. Ticket Booth

#### 18 Serra Hall

- a. Admissions
- b. Counseling Center
- c. Lawyer's Assistant Program
- d. Biology/Psychology/Academic Computing
- e. Classrooms/Science Labs

#### 19 Guadalupe Hall

- a. Alumni Relations
- b. Development Office

#### 20 Loma Hall

- a. Bookstore
- b. Mail Center
- c. Electrical Engineering/Physics
- d. Classrooms/Science Labs

#### 21 Warren Hall

- a. School of Law

#### 22 Katherine M. and George M. Pardee, Jr. Legal Research Center

#### 23 Harmon Hall

- a. School of Education
- b. Classrooms

#### 24 Mission Field

#### 25 Public Safety Station

#### 26 San Dimas Missions (B)

#### 27 San Antonio de Padua Apartments

### 28 Mission Crossroads Building

- a. Housing Office
- b. Residential Conference Programs
- c. Resident Director's Office
- d. Study Lounge
- e. Laundry Room

#### 29 San Dimas Missions (A)

#### 30 Santa Anita Mission Apartments

#### 31 St. Francis Seminary

#### 32 Seminary Housing

#### 33 Cunningham Baseball Stadium

#### 34 Canyon Field and Softball Diamond

#### 35 Manchester Family

##### Child Development Center

#### 36 Alcalá Vista Apartments

#### 37 Sports Center

- a. Athletic Offices
- b. Swimming Pool
- c. Gym
- d. Weight Room
- e. Dance Exercise Room

#### 38 Torero Stadium

#### 39 Field House

#### 40 Graduate Center Apartments

#### 41 Presidio Terrace Apartments



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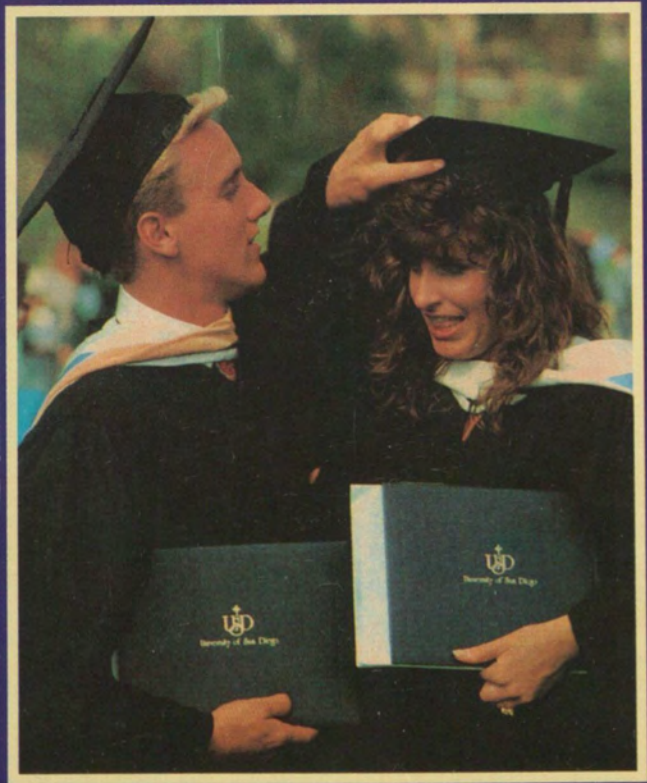


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